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No.10 JULY 1986 £1.00

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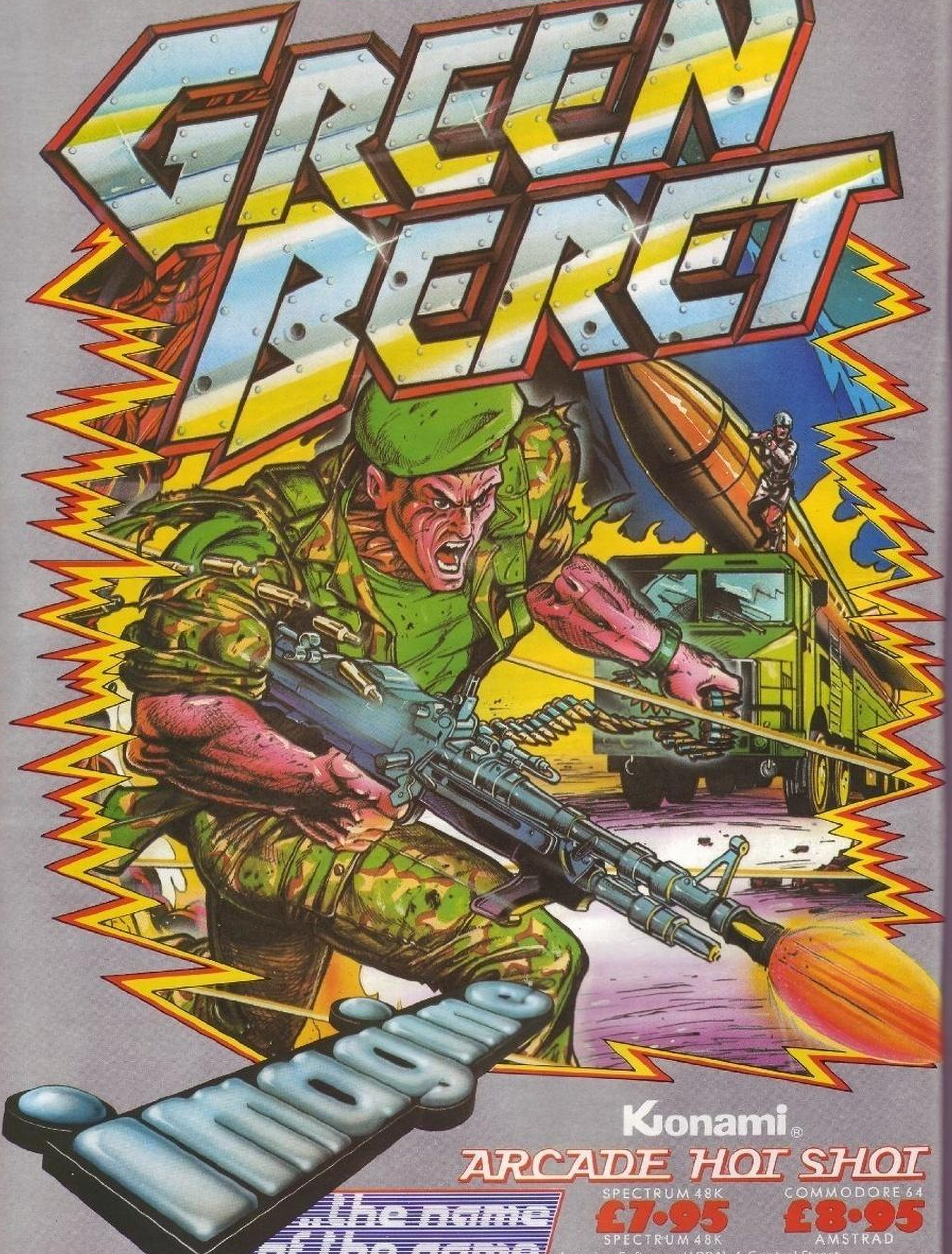
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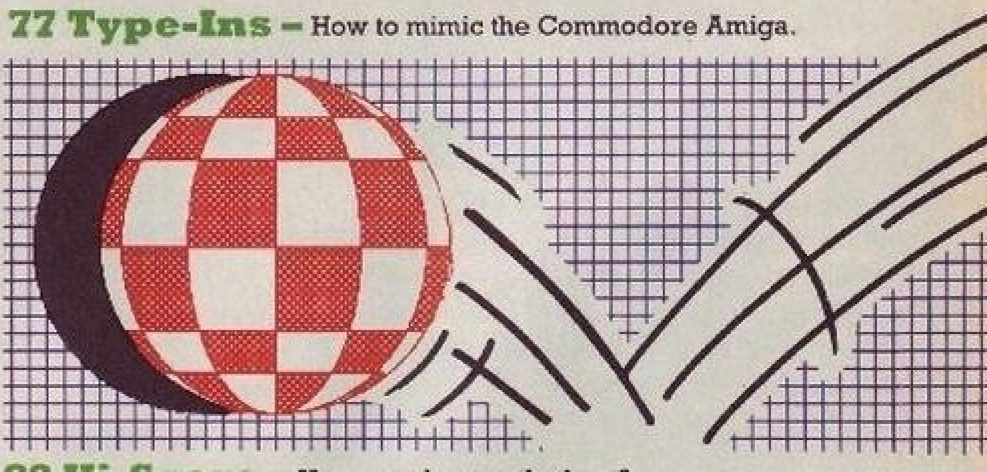

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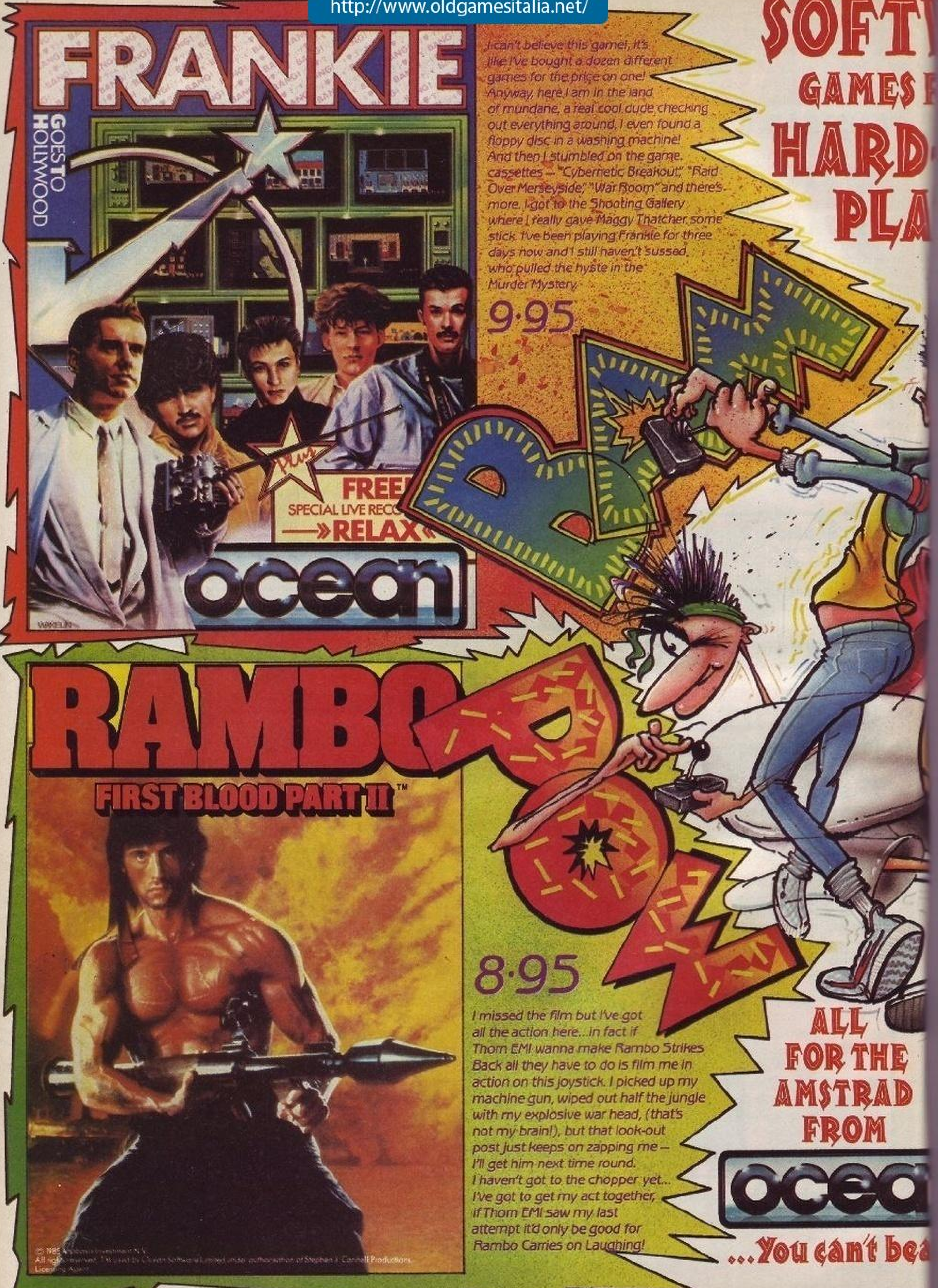
FRANKIE
GOES TO HOLLYWOOD
Plus
FREE!
SPECIAL LIVE RECO
—»RELAX«
ocean
WAKELIN

I can't believe this game!, it's like I've bought a dozen different games for the price on one! Anyway, here I am in the land of mundane, a real cool dude checking out everything around, I even found a floppy disc in a washing machine! And then I stumbled on the game cassettes — "Cybernetic Breakout," "Raid Over Merseyside," "War Room" and there's more. I got to the Shooting Gallery where I really gave Maggy Thatcher some stick. I've been playing Frankie for three days now and I still haven't sussed who pulled the hyste in the Murder Mystery.

9·95

RAMBO
FIRST BLOOD PART II™

8·95

I missed the film but I've got all the action here…in fact if Thorn EMI wanna make Rambo Strikes Back all they have to do is film me in action on this joystick. I picked up my machine gun, wiped out half the jungle with my explosive war head, (that's not my brain!), but that look-out post just keeps on zapping me — I'll get him next time round. I haven't got to the chopper yet… I've got to get my act together, if Thorn EMI saw my last attempt it'd only be good for Rambo Carries on Laughing!

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GAMES
HARD
PLA
ALL
FOR THE
AMSTRAD
FROM
ocea
...You can't bea

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WARE
OR THE
NOSED
YER

The instructions tell me I'm Donovan, with a mission..., wow, that guy's a real keep-fit freak, the next thing I knew I was running down the corridors of the Mother Ship, yeh, running!, just a quick flip on the joystick and I was jumping head over heals, a real Halleys Comet job over some lazer crazy robot. Then I got into the communiputer – laying charges to blow the ship to kingdom come, collecting the RED DUST formula and getting wised up on them robots... hey, I'll have to see you later, things are getting a bit freaky!

8·95

V
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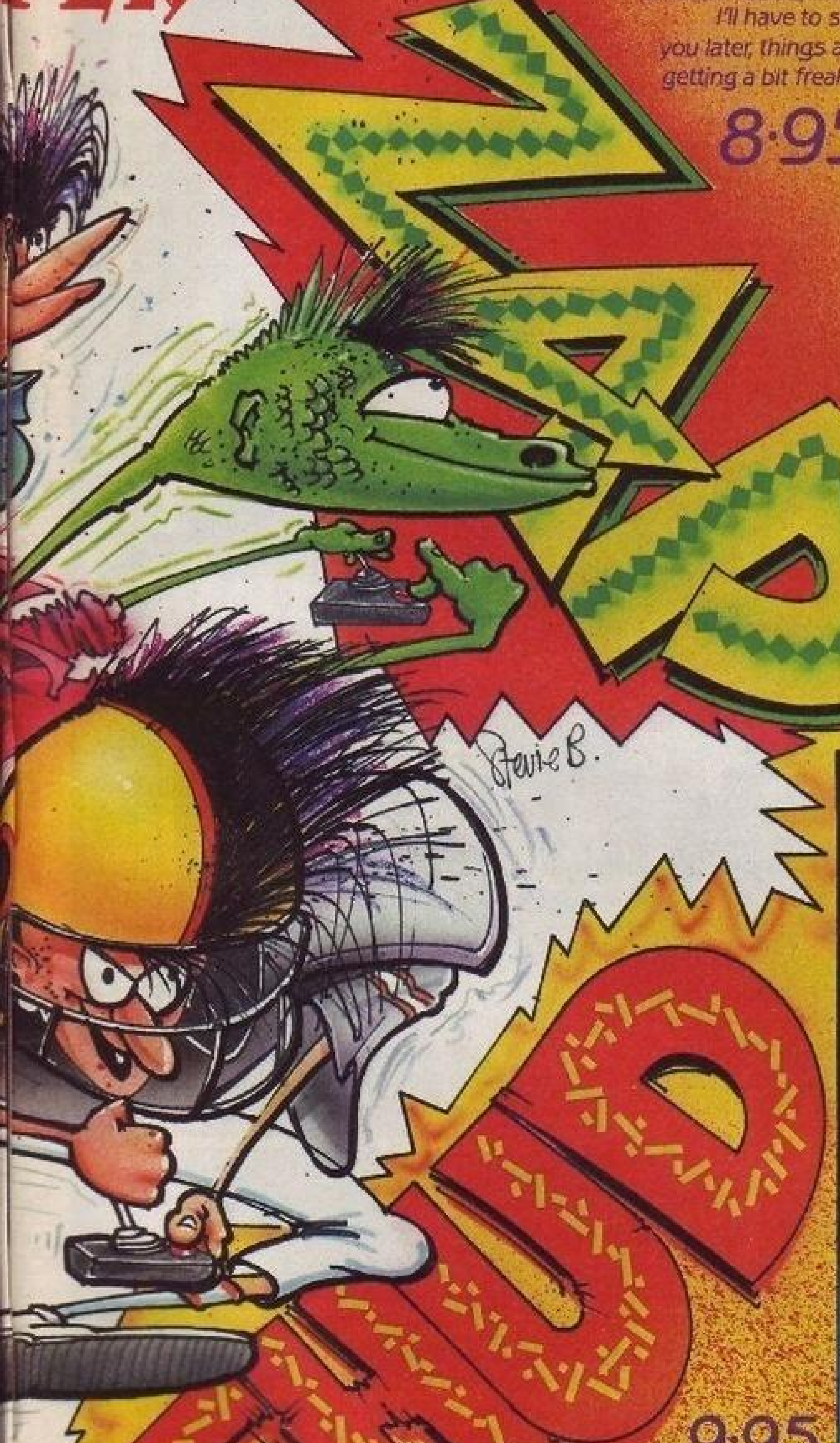

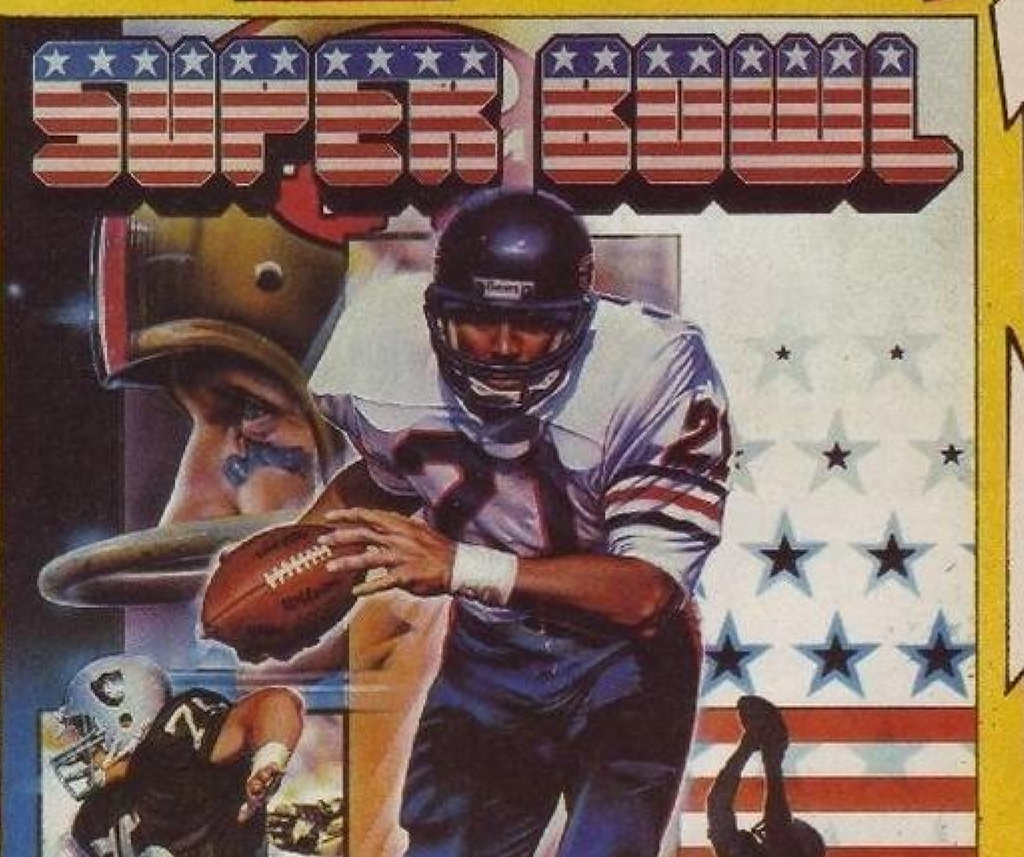

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If only the 'Refrigerator' could see me now, he'd be turning on his joystick and running for the changing rooms. I've got all the gear, these crazy shoulder pads and all, I look like Sue Ellen in a crash hat. Anyway its my turn on the ball and I'm going for a 'RUSH PLAY' – that's real heavy goal-line play and... GORDON BENNETT!!!... I felt that block... now I know why he's called the 'Refrigerator'

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ED LINES

This Issue

And a packed issue it is too! As usual Bob has Waded into nearly 25 games, and is suffering badly from Joystick Claw. Mastergame, for the first time ever, is an adventure: *Heavy on the Magick*. But take a look at *Harvey Headbanger* too – it nearly became Mastergame. While you're at it, *Shogun* is just over the page. If Trevor had had his way it would have been Mastergame. And that's just scratching the surface.

Fans of the Pilgrim will be glad to see that he has staggered back from his monthly quest with more goodies. Five pages from the quill, including the latest from Level 9.

For the more studious our Cover story launches a new series that, over the next months, will tell you how to make the most of CP/M. And for those of you into expanding, Andy looks at Rom boards. These handy add-ons allow you to use Rom software – even faster than a disc drive and with a host of other advantages too. Also catching Andy's attention was *Laser Genius*, a powerful machine code development system for all you hackers.

Meanwhile the Art Team were busy producing playing guides for those of you lost in *Spindizzy* or *Fairlight*, and you have been turning out plenty of letters, playing tips, hi-scores and reviews.

Last but not least we've got plenty of special offers, subscription deals and competitions. This issue starts here.

Page Bottom Winners

Remember the competition we ran in our Winter issues, asking for inventive suggestions for the little phrases at the bottom of our pages? Well, we were inundated with replies, many of which have already appeared. After much deep thought we have decided on these as the winners:

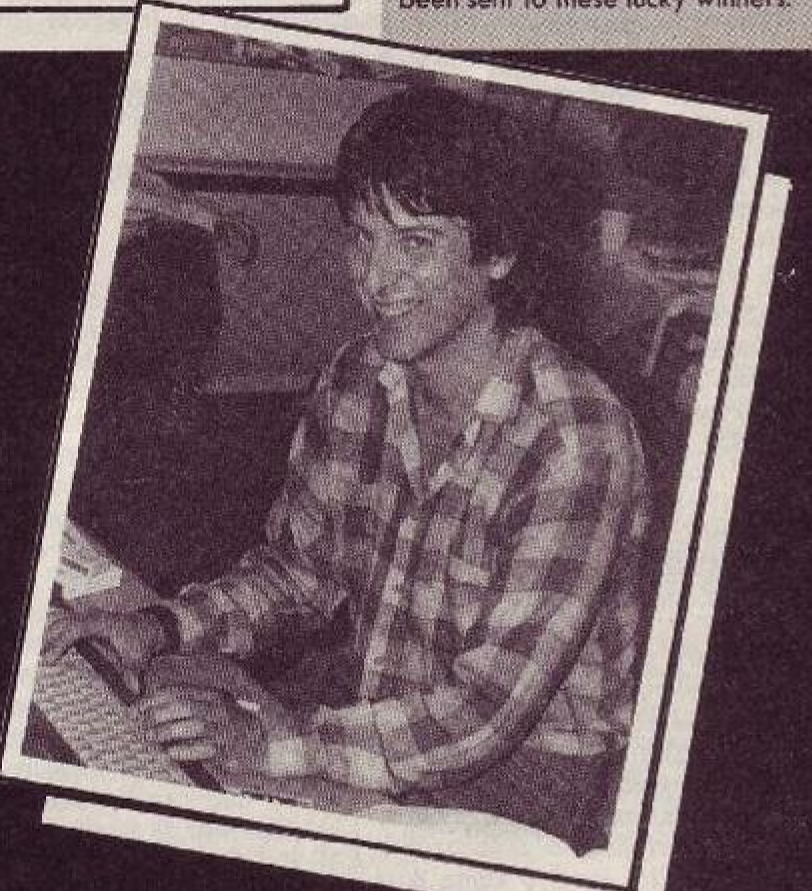
For data day enjoyment...Read the mag with byte J Chapman, Grantham, Lincs.

It's a peach...La creme de la creme P G Worrall, Ayr. (Just one of a very long list!)

Read this...Or I'll kill you Barry Griggs, Chatham, Kent.

A £25 voucher for software has been sent to these lucky winners.

Incoming Ed – Part 2



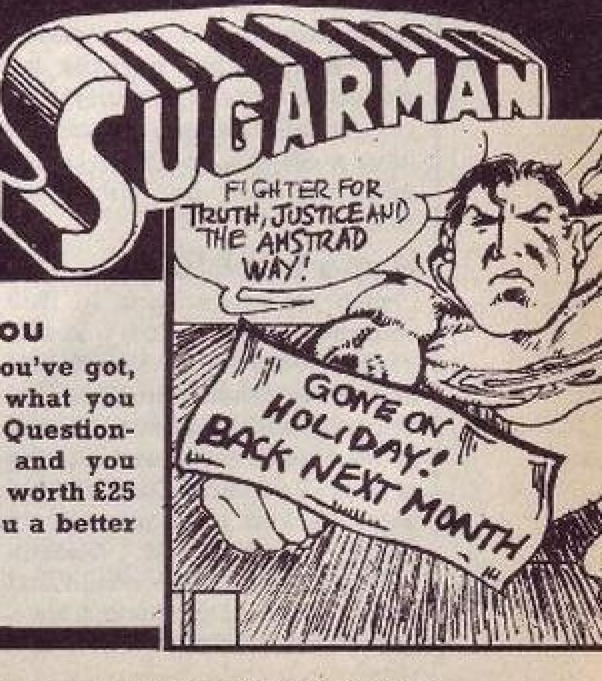
Here I am at last and, contrary to the impression that you might have got from my picture in the May issue, I do – as you can see – comb my hair occasionally!

Seriously though, I am now sitting in Pete's old chair and looking forward to a bright future with AA. As Editor of What Micro? *I watched Amstrad computers rise from being the newcomer on the scene to virtually dominating the home computer market. And then he launched the PCW 8256, turning the small business market on its head. He now shows every sign of doing the same to the PC market.*

Amstrad Action *has done pretty well too. In my view it is one of the most colourful user mags on the market and stands head and shoulders over the competition. But then I am biased.*

One of the reasons for the success of the Amstrad micros is their flexibility – they make a mean games machine but have the power to allow you to run a business (after all – we use them!), make music, write powerful programs, and a host of other applications. Over the coming months Amstrad Action *will reflect all of this and more. Ultimately though it is your magazine. We aim to print what you want to read.*

And all from Sunny Somerset. It certainly makes a change from London town, and a very pleasant one too.


SUGARMAN
FIGHTER FOR TRUTH, JUSTICE AND THE AMSTRAD WAY!
GONE ON HOLIDAY! BACK NEXT MONTH

CARTOONS!

What happened to the cartoons then? Send us your cartoons and you might see them in glorious black and white on these pristine pages. Send them to *Trevor Gilham* at the address on this page – if he likes them he'll use them.

Help us help you

Let us know what you've got, what you like, and what you want. Fill in our Questionnaire on page 102 and you could win a voucher worth £25 and help us give you a better mag.

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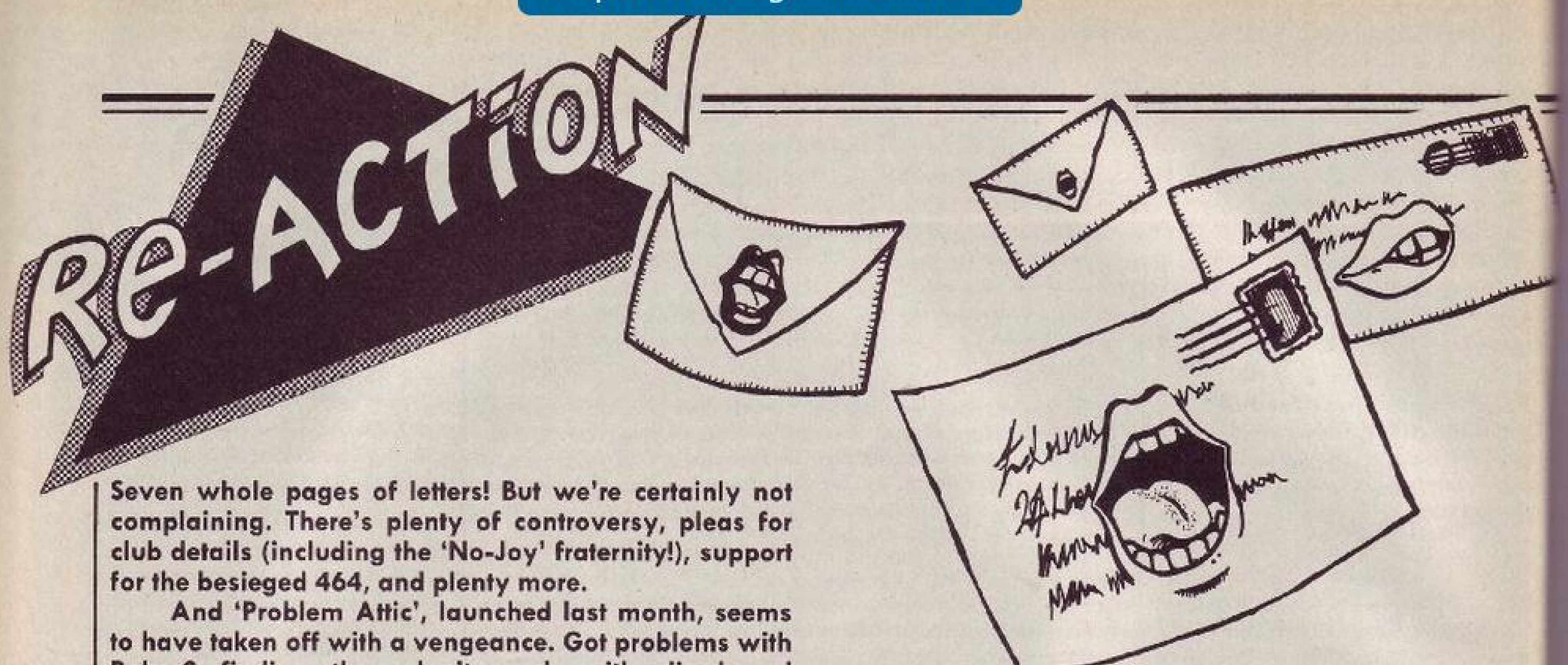
There's a new kid in town



Seven whole pages of letters! But we're certainly not complaining. There's plenty of controversy, pleas for club details (including the 'No-Joy' fraternity!), support for the besieged 464, and plenty more.

And 'Problem Attic', launched last month, seems to have taken off with a vengeance. Got problems with Pokes? finding they don't work with disc-based games? Read Problem Attic. If you don't find the answer to your problem there then write to us. The combined brainpower of AA might be able to come up with the solution.

Finally, please don't send stamped addressed envelopes with your letters. I'm afraid we can't answer your problems individually – we're to busy producing Amstrad Action! If your problem is of interest it'll be published in the next issue anyway.

The address for your problems, objections, congratulations, tips and views is:

ReAction, Amstrad Action, The Old Barn, Somerton, Somerset TA11 5AH

Save the 464!

If the excellent CPC464 is under threat as much as you and everyone else makes it out to be, the time has come when we ought to think about setting up a 'DON'T KILL THE 464' pressure group.

David Piner
Hayes, Middlesex

It is very difficult to say at this stage whether Alan Sugar will drop the 464. It has sold very well and is being heavily supported by software houses and peripheral manufacturers alike, but his purchase of Sinclair will undoubtedly lead to some sort of 'rationalisation' in the near future. I'm sure he is aware of the loyalty that exists towards little Arnold, but perhaps we should all write to him anyway?

I would certainly prefer to have a 464 to a Spectrum of any kind any day, but then I am biased!

Hype bubble

I wish we were back in 1983 computer-wise. You know, games going for £3 a shot. Not like today when you have unoriginal, boring games, packed in huge junk cases and costing at least £9.95 each. Games of old were packed in comparatively plain, normal-sized cassette cases, but inside one would find wacky, original and lasting fun.

I still like to load up the old classic *Jet-Pac* now and then. Now, all Ultimate can produce are arcade-adventures, all based on the same idea.

As the months of '83 ticked by and the real computer boom began we realised that the days of our humble Vics were numbered. In came the Spectroid, Sicky-four and more recently the Amsplat. With them came an odd phenomenon known as the hype bubble. This is filled with hot air emanating from the glossy adverts and flashy packaging that can be seen on the shelves of high street stores like W H Smith and Boots. All these stores are interested in is the quantity of advertising and the amount of discount they can get for buying big numbers of a game. They are not interested in the quality of the games, after all they don't play them do they?

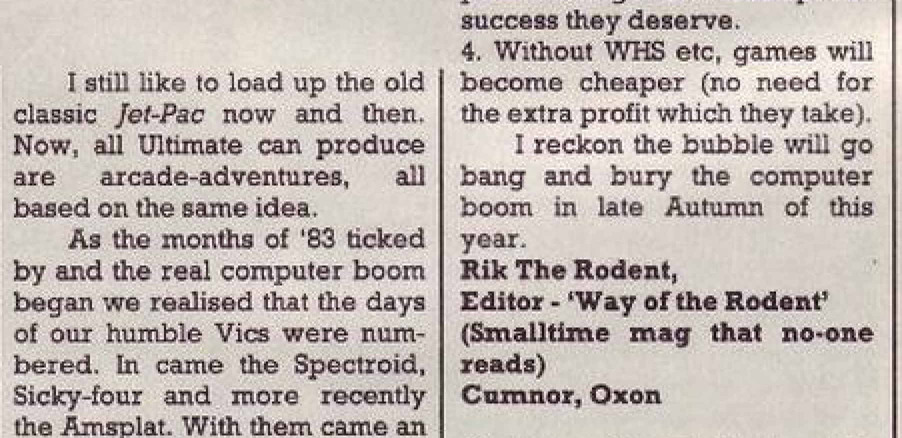
As happened in the video business the computer hype bubble will burst. The effects will be as follows:

1. The high street stores will drop computers quicker than you can say 'Oh God, not Manic Miner part 792'. They have no loyalty to computers or to software houses.
2. Ocean will go bust.
3. Realtime, Llamasoft and other similar small(ish) software companies will get the wide spread success they deserve.
4. Without WHS etc, games will become cheaper (no need for the extra profit which they take).

I reckon the bubble will go bang and bury the computer boom in late Autumn of this year.

Rik The Rodent,
Editor - 'Way of the Rodent'
(Smalltime mag that no-one reads)
Cumnor, Oxon

Controversial, what! I would disagree with you on two points. Firstly, what about the Mastertronic games or Firebird's Silver range? Plenty of excellent games there for only £1.99; just one example being 'Harvey Headbanger', an AA-Rave this month. On your second point, I don't remember the High Street shops dropping the video phenomenon like a hot potato, I don't rememember them dropping video at all!



Moaning Minnies

First I must say how mega and ultra fantastic the magazine is. (If I get a free tape I'll have any except Amsoft tapes.)

To the next point. Why do all the 664 owners have to moan. They're at it in every issue I see of Amstrad Action. I wonder if the 8256 owners will be doing the same. I think they all should shut-up and be thankful they've got a computer with 64K, which is a lot better than 48K or 32K. I haven't even got a disc-drive and I'm not complaining.

Oh, by the way, before I forget; are you giving any more free games away? I got *Kung Fu* and *Number One*, and then I got the *Covenant*, but what I think is wrong is that you put the price up to £1.50. The game was supposed to be free, so why the extra 50p?

Anon
Bridlington, N Humberside

Mind your Ls and Js

I must say that I feel the Covenant is excellent and as of yet I have only seen about six locations, roll on the other 250. I am equally pleased with the other demo games on the tape. What a breakthrough, you spend £1.50 on a magazine and get five games as well. I ask myself, is AA going to do for the magazine world what Alan Sugar has done for the home computer industry?

Well done for an excellent publication, this is the only AA I have ever purchased, but it certainly will not be the last. One last point, to SAVE a game from within Covenant you press 'S' as per the instructions, but you have to press 'L' to load a saved game and not 'J' as was printed.

Mr S J Woodford
Worthing, Sussex

Thanks for the tip, sorry about the misprint, and I don't think an extra 50p is too much to ask for five extra games, either!

Customer disservice

Have you noticed how software prices seem to be climbing higher all the time? The norm on the Amstrad used to be £8.95 but now it has risen to £9.95. You would think that with the increase in prices there would be an increase in customer service, but this is not always the case, as I have recently found out.

I have just purchased *Interdictor Pilot* by Supersoft, which I ordered from a computer club, the normal price being £17.95. Only one side of the tape would load, so I wrote to Supersoft asking if I should return it for replacement. I received a small slip of paper with the following answer. 'The program on the reverse side of the cassette is the same as the first side - as long as one side works, there is no need to have the tape replaced'.

Considering the high price you would think they would treat their customers better than that. Both sides may be the same but if Mastertronic can produce tapes with two working sides, at their prices, then surely anyone can. Needless to say I won't be buying from Supersoft again.

Thanks for the best Amstrad magazine on the market. Long may you reign supreme.

Allan Mayers
Cwmbran, Gwent

You've got a point, but you've also got a working game.

Don't knock computers!

This letter is addressed to all those people who knock computers for the fact that children only play games on them and gain no real benefit. Just sit back and think about this.

I have two young children (aged seven and five) who enjoy playing games that we have bought, rather than learning about programming and making up their own games. I am no longer bothered by this because I have found that playing the games has had the following effects:

1. It has improved their reading ability, vocabulary and spelling.
2. It expands their imagination both off and on the computer (some of their high-score messages are unbelievable!)
3. It has improved their hand and eye co-ordination.
4. Finally, it is familiarising them with computers, which can only be good for the future.

Having said all that I would still like to obtain educational software for them, but cannot find much available (perhaps you could help with an article on what's around at the moment?)

Until then I'm more than happy to see them playing games.

Keith Todd
Waterloo, Merseyside

Other parents, take note! We have already done a survey of the educational software available for educating Arnold, in our April 1986 issue. If you want a copy, send a cheque for £1.35 to 'Back issues' at the address in the front of the magazine.

SOFTWARE
WINNER

Desperately Seeking Software

Does anybody know anything about the Sega games *Buck Rogers* or *Spy Hunter*? According to the latest Amsoft catalogue they are 'New Releases'. I haven't seen them in the shops and I don't know anyone who has. Also has anyone seen the game *FRAK!* from Ardvark? Has it even been released on the Amstrad?

Last month Stephen Jones (no relation to me) asked about binders. I know several people who would appreciate binders, including me.

Rhys Jones
Peterborough

Bad news I'm afraid, the Sega games are still not ready, and I doubt they will be for a little while yet. Much the same applies to Frak. Amsoft have the rights for Sega games on Arnold in this country.

Binders for AA are still not available, but are being made up and will be on offer in our pages in the next issue or so.

Support your Pilgrim!

I personally prefer Adventures to Shoot-em-ups, although there's nothing wrong with them. But I like Adventures and I call out 'Give the Pilgrim more space'. I got so fed up I put the grey matter to work. I've done a review of AA, comparing Action Test with the Pilgrim:

Average no. pages in AA – 112.4
Average no. pages in Action Test – 22.2 (24.9%)
Average no. Pilgrim pages – 6.6 (7.4%)!

As you can see, adventures don't do so well! Even the ads get more pages! I agree there are more 'Shoot-em-ups' than adventures, but that is no excuse. It might be better if Cheat Mode covered adventures, but it doesn't.

My comments are not directed at Bob Wade especially, but to him I say 'Shove over and give Pilgrim room to breath!' Apart from this fault your mag is fab. Long may you live and prosper.

Paul Nicholls
Hoddesdon, Herts

Come on! You're moaning about over six pages devoted to the Pilgrim? There aren't many mags that give that much coverage to adventures – and I would point out that this month's 'Mastergame' is an adventure!

Man without Joy

As founding member of the 'No-Joy' group, that is the 'Amstrad owners who haven't got round to getting a Joystick' group, I would like to offer my program to other members of the group who would like to play your Battle of Britain Demo in your May issue.

On my 6128 only one joystick, JOY 0, is supported by a Port. JOY 1 is covered by the keys '5', '6', 'R', 'T' and 'G' respectively.

My program redirects the jumpblock address at &BB24 to a little routine which checks JOY 1 instead of JOY 0. This happens because, after calling the joystick check routine in lower ROM, the L register contains JOY 1 info and the H register JOY 0. The demo program then uses the L register instead of the H.

J M Worsley
Fareham, Hants

```
1 |TAPE
2 FOR i=&4500 TO &4509:READ d$:POKE i,VA
L ("&"+d$):NEXT
3 POKE &BB24,&C3:POKE &BB25,0:POKE &BB26
,&45
4 DATA E5,CD,7,45,7D,E1,C9,CF,E5,9D
5 RUN"DEMOAIR.BAS"
```

PS If the letters editor in his infinite wisdom decides to:
a) Print this letter,
b) Provide some form of remuneration for the many hours of thinking and key-tapping involved in its production,
then I will gladly form the 'Lots of Joy' group. That is the 'Amstrad owners who wangled a joystick out of Amstrad Action' group. I know the initials don't match. Put it down to artistic licence.

I'm sure all members of the 'No-Joy' Club will be very grateful...

PROBLEM

Repairing Arnold

At last we've convinced Dad to take up your subscription offer, after all he reads your your Ace Mag as well, (it's the only one he understands!).

We think that Amstrad Action has just got to be the best. It's written in good old West Country language, unlike the other Amstrad mags. With all the technical jargon we sometimes wonder who buys them!

How about giving loading times in your reviews? Also, as the 464's been around long enough for the odd problems to develop, especially with loading, why not give some information on repair centres; where they are, typical costs etc; or even DIY solutions. Show yourself to be the magazine that really cares.

Paul and Clare Wilkins
Bristol

In our efforts to get you the review as soon as a game hits the shops we often look at pre-release versions, or versions on disc, so the loading times are not always representative of the final product. Loading times don't really reflect the quality of a product either – suffice it to say that you will usually have time to make yourself a cup of coffee!

We are aware of the odd problem with loading software on the 464, although it is fairly reliable as micros go. If you do have problems it is usually best to go through the shop where you bought the machine, who will either fix it themselves or send it back to Amstrad. If you still have problems, Amstrad's Customer Service number is (0277) 230222. If you have problems after that, let us know!

'My Reputation Ruined' Whimper
K.FEE

Call for clubs

I was disappointed not to see my name beside the programs for transferring three adventures to disc – Colossal Adventure, Return to Eden and The Hobbit – although I did appear in the Lords of Adventure column. I didn't expect payment for the programs but at least I thought you ought to have given a little credit for all the hard work!

I would like to get in touch through your pages with any others like me who like to transfer adventures to disc, as I find this as much of a challenge as the adventure itself.

And how about a list of Amstrad clubs. There must be lots of Amstrad owners in the Birmingham area but I don't know of any clubs. If there is a club nearby could someone tell me, or maybe interested people could write to me with the idea of forming one.

Alex Aird
139 Bromford Road
Hodge Hill
Birmingham
B36 8HR

The Pilgrim is grovelling before the appropriate god as we speak!

If you have any success with clubs, do let us know, and if anyone else wants to recommend a club, write and tell us with the full name and address for other potential members.

Disc pokes

I have recently purchased a 6128, and I must say that I am most impressed with the loading speed and the amount of memory storage space the Amstrad discs can handle. Naturally enough, I went straight out and bought a load of disc software, completely disregarding the tape range. My next idea was to get some brilliant magazines with some pokes or hints for the games I bought, and some reviews of future software. I know this sounds like sucking up, but your mag was the only one on the shelf worth even considering.

Unfortunately I soon discovered that, although the hints were great, I couldn't use any of the pokes for my games. Is there any way you can suggest (without spending a lot of money on hardware, or re-buying my games as tapes) that I could apply these pokes to my disc?

Mark Sullman
Ringmer

I am afraid that pokes for tape games just don't work on disc versions. The reasons are quite complex, but are basically down to the different kinds of protection routines used with the different formats. Most tape game pokes work by first of all getting round the tape loader, and then poking the appropriate values into the appropriate addresses to give you infinite lives, or whatever. Unfortunately it has to be done differently with disc-based games.

However, if any of our more ambitious readers would care to send us pokes for disc-games they would make a lot of readers happy, and could win themselves glittering prizes!

Not quite a Computer Widow

I'm a computer widow. Arnold is to blame, but you've got to take your share. When he's not typing in your listings he's reading AA.

I'm on a loser unless you get me answers to the following – fast:

1. Cheat modes: He's got the cheat mode for TSAM JSW, but it doesn't work on the 6128 disc version. Can you help?
2. He spent 3 days doing a one-fingered job on *Music Composer* in your Feb issue. Great! Chopin in the making...! Until he found out that it didn't explain how to incorporate it in the program he's designed. You save it as a binary file, but then what?
3. And then you gave him The Covenant freebee AND the instructions on how to transfer it to disk. It doesn't. That was another 2 o'clock in the morning saga.

Come on AA let's have some answers.

Incidentally I wonder if there are any other wives out there who have become computer widows. Is this a job for Sugarman?

L Harris
Canterbury

You sound fairly conversant about Arnold for a computer widow! Perhaps you have caught the bug just a teensy weensy bit?

However, down to the serious stuff. On your first point, I simply refer you to Mark Sullman's letter above.

Your second point is a little more complex. Using such a binary file in another program depends on your ingenuity as a programmer. If you feel up to it, examine the listing of Music Composer to discover the form in which the music is saved, and go on from there. If anyone else has played around with this, do let us know what you've come up with.

Finally, you are indeed correct – the type-in for loading Covenant on to disc didn't work. Abject apologies for the sleepless night, but we have published a listing that works in our June issue on page eight. Hope that solves the problem.

SUGARMA
H-E-L-

ATTIC PROBLEM ATTIC

Your loftier questions answered.

Dots before your eyes

As a regular reader of AA, I find myself writing to you begging for HELP! please, if you or anyone can. After many games and hours on *Sabre Wulf*, my wife decided to try your 'Cheat Mode'. Alas to our shocked eyes all she got was nothing. After typing in and running the 'Cheat Mode' up came 'press play then any key'. This she did. The game started to load, then after 20 or 30 on the counter it stopped. The screen went black. Then white dots started to appear on the screen at regular intervals, starting top left and going to top right. Then going down a line. Then across screen again, all the way down to the bottom right. Then back to the top again, until the screen was full of white lines going down the screen a regular intervals.

So the machine was turned off then switched on again, the tape was rewound and started again without using the 'Cheat Mode' program. Up came the prompt 'loading Sabre Wulf Block 1', then 'click' the screen goes black and it starts all over again. The dots start again. Off goes the machine, in goes another game. Perfect – no problems. In goes *Sabre Wulf*, and again little white dots. She did not press 'REC' or any other key when she did the Cheat Mode, So if anybody can HELP! please I would be very grateful.

K Griffiths
Anglesey, Gwynedd

It would appear that, at some point, you have corrupted the program on the tape. This is definitely not as a result of using the 'Cheat Mode' program, as this does not write any information to tape. Information cannot be written to the tape without pressing the Record key first.

It is difficult to say at what point the tape was corrupted. The only point that it might have happened is if you turned Arnold off before stopping the tape. This can corrupt the program. The effects you observed on the screen sound like the screen memory being corrupted, and may have happened because you typed the program incorrectly.

Problems with pokes

I've only had my computer for about 4 months, and as yet know very little about programming, or for that matter any other aspect of computing. My success with games is limited, hence my query.

I seem to be having trouble typing in my progs. For example, the *Spellbound* poke given in your latest issue, which when typed in gave me 'Data exhausted in 30'. Likewise a similar thing happened when I typed in a poke for *Nonterra*, only this time it came up with 'Type Mismatch'. Imagine my annoyance when I typed in a game listing of some 360 lines from another mag, only to find 'Data exhausted in 430'; yet, on checking, no typing errors were found.

It has occured to me that these progs were written on 664's, but would that make them incompatible, or is the problem with my 464? Have I got a 'rogue'? Also, I have it seems a fault on my volume control, just to add insult to injury.

So there you have it. Please can you throw some advice in my direction before I become completely bald.

Dave James
Stroud

Keep your hair on, Dave! I doubt very much that there is anything wrong with your machine to give this sort of error. The most likely cause is simply that you have typed the listing incorrectly; this error message is likely to come up if you have mis-typed any of the code in the DATA statement, line 60 of the Spellbound poke.

Listings printed in magazines are usually taken directly from a printout from the computer, and rarely contain mistakes. But it is very important that every single character is typed in accurately, otherwise the whole program will crash. The answer is to check, check, and check again.

Error messages from Arnold, like those on most computers, are not that easy to interpret. For example, the error you encountered with the Spellbound poke occured at line 30, as stated. However line 30 is telling Arnold to READ data from the DATA list on line 60, which is why I suspect your problem to be there.

Tape to disc transfer

Could you please help me. I have an Amstrad CPC6128 and have had trouble transferring games from tape to disc. I bought *Transmat*, but found that a number of games didn't transfer and yet weren't on their *TIE'S*, (additional programs for problem tapes). Problem games include: Yie Ar kung Fu, Beach-Head, Matchpoint, Matchday, Bruce Lee, Knight Lore, Kung Fu, Number 1 and Dynamite Dan. Could you please advise me on how to get these games to run on disc.

David Marek
Edinburgh

There is another program called Bonzo Meddler *from Nemesis that might do the trick, but it might not. Remember that copying commercial games, or software of any kind, constitutes a breach of copyright and as such is illegal. No one is going to object if you transfer them for your own use, but if you start selling copies, or even give them to friends, you are breaking the law.*

Utility of the year

Many of your readers seem to be having difficulty with some tape based programs not loading on machines which are equipped with disc drives. I also had problems with my CPC464 with the disc drive attached and would like to pass on to others how my problems were solved:

I would like to nominate Beau Jolly's *10 Computer Hits* as Utility of the year as it solved my problems with difficult programs. It has a small loader program before each game and this loader program, when run, restores the memory lost to disc. You then press CONTROL and small ENTER, as for normal tape load, and hey presto your program works. I hope this tip will be of as much use to your readers as it was to me.

P E Reynolds
Southampton

Many thanks for the tip, and yet another reason to buy 10 Computer Hits*!*

Battery backup

Do you know of anyone who makes a battery backup for the Amstrad or any other 5 volt supply computer? The Amstrad has got protection against mains spikes and drop-outs, but not of course against the sort of interruptions that lightening causes, especially in rural areas like this with overhead cables, etc. It should be possible to fit a small rechargeable pack between the monitor and the 5 volt socket.

Martin Clark
Builth Wells, Powys

We don't know of such a product. You can buy a UPS (uninterruptable power supply) from companies such as A1 Computer Services, Telford (Tel: 0952-502737). This gives you around half an hour's use after a power cut – enough time to get data saved onto disks. But it'll cost you more than the computer did – around £500.

Stunt Rider

I am writing this in frustration and anger. Like most Amstrad owners I have become a game addict. I sleep, eat and talk Amstrad. The reason for this letter is because for 5 months I have been trying 'Stunt Rider'. I have been gripping my joystick and tried to attempt 50 buses but always crashing on the 48th bus. I have done everything you can do to the game. There are probably other addicts out there with the same problems. Am I doing something wrong or am I just no good at the game?

Julian Burton
Tiverton, Devon

Neither. We don't know of anyone who can manage all 50 buses. BW certainly can't. Maybe they just put the extra buses there to keep you gripping the joystick for five months. Can't think of any other reason you'd want to keep playing that particular game.

Why no discs?

Reading your 'Re-Action' column really winds me up and tempts me to write a letter to you. If I did write to you I would correct the 464 owners bemoaning the advent of the 664 and 6128, and as an owner of a 6128 I would confirm that the 464's have the advantage of a built-in cassette.

If I wrote to you I would suggest the software industry is geared up to produce cassettes first, with discs a very poor second. To prove my point I might quote your magazine page 113 'IMPORTANT' "If you want the disc version of a game ... (Action) ... otherwise you'll get a cassette. DO CHECK first that a DISC VERSION EXISTS."

Probably if I wrote to you I might tell you the reason the colour printer I purchased off AMSOFT six months ago hasn't yet produced a colour 'print out', is because the software provided with it was on CASSETTE. But then I would have to write and tell you, how, due to AMSTRAD/AMSOFT/AMSCLUB disinterest my printer is in the hands of AMSOFT'S supplier who has offered to produce disc software and solve my difficulties. Unfortunately they only have access to a 464 machine and have had to order a disc drive from Amstrad, hence no further action for another month.

If I did write to you I could grovel and say what an excellent magazine you produce and what good value for money it is (as an Amsclub member I am privileged to receive the 'official' magazine at a cost of £1.67/copy!)

No I don't think I'll write, you might think my letter good enough to win a tape!

Trevor Davies
Wolverhampton

Your pleasing little exercise in satire has resulted in us changing our award system. Congratulations, you are our first SOFTWARE winner. A £15 voucher from our mail order department is on its way for you to spend on the DISC of your choice. If you can find one that exists, that is.

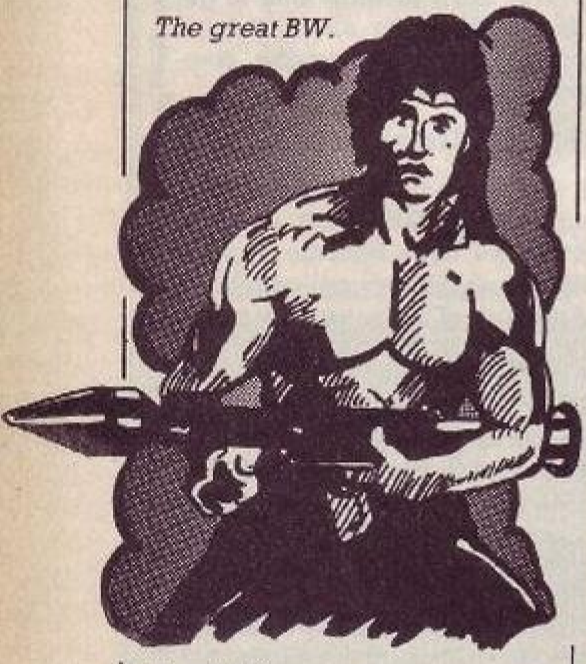
SOFTWARE
WINNER

Rambo riddle

In your Issue No. 8 you give 'Rambo' 58% overall. I go into a shop and take another Amstrad mag off the shelf (not to buy of course) and read through the software reviews. I find 'Rambo' game of the month with 19/20 overall. Who do I believe? The Great BW or the other reviewer?

Damian Smith
Wimborne, Dorset

The great BW.



Back issues

I won't bother going into all the stuff about how much I like your mag because the following will tell you how much I like your mag.

I have been getting your mag for about 5 months, but I missed getting issues 1,2 and 3, so please can you tell me how I should go about getting them and how much it would cost.

Jason Nelling
Nelson, Lancs

I'm afraid we've sold out completely, and that goes for issue 4 as well. 5-9 are available as back issues – they cost cover price plus 35p P&P. In other words £1.35 for 5, 6, 7 and 9 and £1.85 for issue 8 (which includes a free cassette).

You won't print this

You fibbers! My colleague, Mr C Wilson and I sent you a demo tape of our software house's first release, the "Oftsoft 4 pack" priced at 99p, since we had read in issue 8 of your mag that you review every new game you can get your hands on. Then I received your letter saying that you found our games "interesting" but had decided against reviewing them. Why? Okay they're not blockbusters, but they're not that bad. For all you know I could be a starving 90 year old man who's last resort was setting up a software house. A certain game that you reviewed scored only 10%, surely our 4 pack would have scored that much wouldn't it?

One of the games has now been dropped and two others have been improved so will you review them now? If not I suppose suicide is the only answer, but that wouldn't bother you would it? By the time you read this I may be dead and your reputation would be ruined. Ha, ha, ha, ha! But you won't print this anyway because you'll feel too guilty.

Andrew Douglas
Carlisle, Cumbria

Yes, I guess your pack would have scored around 10 per cent on value and you'd have been even crosser. We ARE interested in looking at software from small, new software houses, but there's no point in our reviewing it unless the programs are good. Neither you nor the rest of our readers are going to thank us for slagging off a product which few people have ever heard of.

Software delays

During one mad week now lost in the midst of time I spent over £30 on two programs, Elite and Mini Office ll. Due to their now infamous bugs they were both returned to the software houses concerned. I have only just received my new copy of Elite but seem to be getting regular letters from Database saying that they are still working on M.O.ll.

I must say I do find the situation intolerable. Is this the standard of treatment I must learn to expect? When I spend nearly £20 (Mini Office ll) on a product I don't expect to be without the use of it for weeks (or is it months) on end due to the manufacturer's fault. I know that Firebird have given a £2 voucher to those of us who had the misfortune to buy Elite plus bug, but I notice it is only redeemable from their own mail order service, when with a little bit of shopping around for discounts the voucher is effectively worth near to nothing.

It does seem to be a sad and shabby state of affairs and it's about time some of these software houses got their fingers out!...Phew I needed that!

The moral of this tale is of course do not rush out to buy a program on release, wait! And then you may get what the adverts promise.

Barry White
Biggleswade, Beds

Arnold v burglar

I bought myself an Amstrad 464 for Christmas and since then my house is starting to clutter up with expensive electrical items, so I was wondering if it was possible to buy an alarm system to use via the computer without having to buy a burglar alarm system.

Andrew Burridge
Exeter

Can anyone help?

It is I

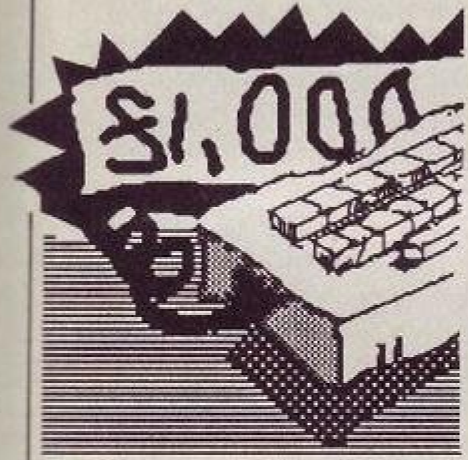
Before I get to my point, I'd like to clear up a few others. Firstly Mr M Valery who brilliantly achieved 13,728,780 on Yie Ar Kung Fu back in issue 7 was in fact Mr C Valeri, me. Secondly I totally agree with Anon from Ramsgate, Kent of the same issue 'Re-Action', and by the way that was me as well. I never realised my writing was so bad, that's why I've taken the precaution of typing this time.

Now to the point. I've

always wanted to know why it is that the price of software is constantly rising while hardware gets cheaper. I can remember the days when a game cost between £5 and £6 (and magazines were about 65p). Nowadays most games are between £9 and £10. By comparison the 464 used to cost £350 (with colour monitor) and now it's £300. Even (dare I mention it) the Speccy+ used to cost £180, now it's £130 and to be reduced even further I believe because of the 128. So why does software get more expensive?

Mastertronic have got the right idea pricing their software between £2 and £3. A game like Spellbound could beat some £10 games hands down and everyone can afford it.

Christian Valeri
Ramsgate, Kent



Advancing technology has allowed hardware costs to fall dramatically. Software costs depend largely on the number of man-hours that have gone into developing a program and this has tended to increase as software becomes sophisticated. But the price of software also depends on how many people are likely to buy it. That's why Spectrum software tends to be a little cheaper – there are many more Spectrum owners out there. Mastertronic's gamble of selling software very cheaply has paid off in very high sales, and several other companies are now moving into the budget software market.

Ultimate's downfall?

When I originally got my Spectrum in 1984, the first two games I rushed out to buy were Underwurlde and Knightlore. I'd seen reviews which couldn't praise them enough. Then Alien 8 came out and a great amount of hoo-ha was generated calling it a rip off, Knightlore redesigned etc. but I took no notice. So, being a great fan of their software up until then, when Nightshade came out, I bought it without even seeing a review beforehand. What an idiot I felt when I loaded it up! It was pure unadulterated $!*!.

Gunfright is just the same with a few more frills added to fool the unsuspecting software purchaser yet again. But, to cap it all they've now had the cheek to release Cyberun, which is worse still, consisting only of an upgraded 1983 game Lunar Jetman. I don't know what is happening to Ultimate, but they won't last much longer if they carry on the way they are going at the moment.

S Valente
Tyne & Wear

Maybe you're overstating it. A lot of people really liked Nightshade for example.

Help

IT'S IMPOSSIBLE.......................
I am of course referring to Airwolf. I have had this game for four months and can last only as long as the bonus does. I have blown up boxes, attacked the "spinning dustbins", prayed, sworn and pulled my hair out but still no success. Please can you help me?

Fraser Aophins
East Kilbride

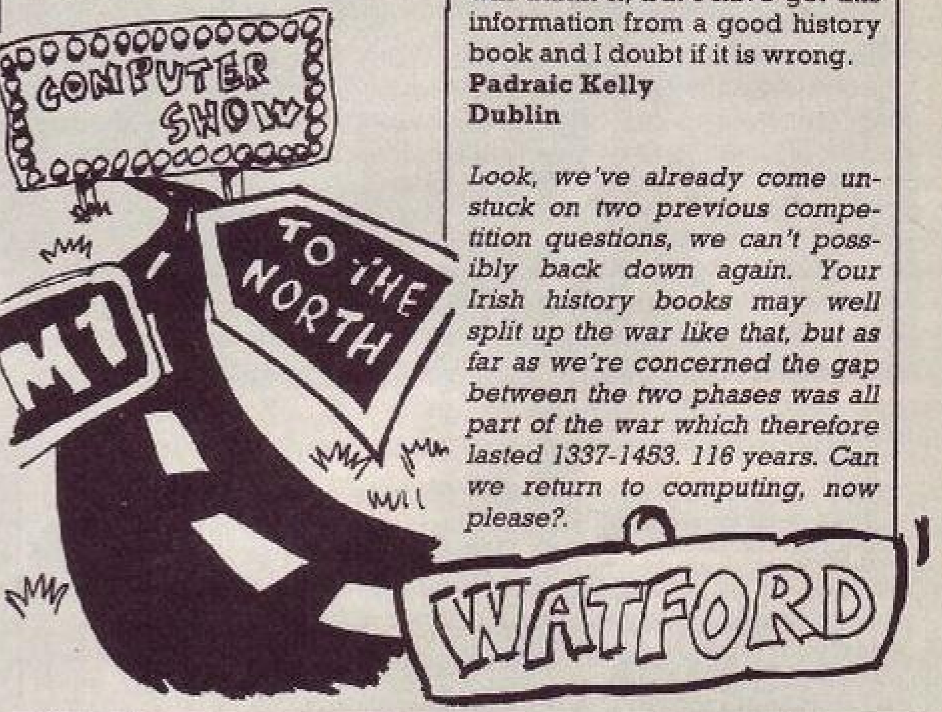
Yes, it's mean, isn't it? That's why we printed an indestructibility Poke in our March issue. Did you miss it?

Frozen wastes

I am probably speaking on behalf of hundreds of Amstrad users who live up in the frozen wastes of the North. Normal belief has it that the only things North of Watford are Balmoral and the M1, but some bright spark took it upon himself to test this theory and (SHOCK! HORROR!) brought the Amstrad Computer Show to Manchester! And what was the effect? Amazement, glee and a taste of the better life. Now we are on the rampage. Either ensure us a Northern Computer Show for every year to come or we will come down there and wring all of your little necks. Hadrian's Wall will not keep us out any longer. So there!

John Jenkin
Wilmslow, Cheshire

Here in Somerset, anyone living north of Shepton Mallet is considered an Eskimo. WE think there ought to be a WESTERN computer show.



No Answer

In the 'Knight Games' competition there was a question: "How long did the Hundred Years War last?" There can be no answer to this because there never was a war lasting one hundred years. There were two parts to the Hundred Years war. The first was from 1337 to 1378, when the English had victories at Crecy (1346), Calais (1347) and Poitiers (1356). The second part was from 1420 to 1453. In 1429 Joan of Arc relieved Orleans from the English, who had besieged it for seven months. She was caught and burnt in Roven in May 1431 by the English as a witch. But she had given the French the will to fight. The English lost all possessions in France except for the Port of Calais. If I am wrong I will admit it, but I have got this information from a good history book and I doubt if it is wrong.

Padraic Kelly
Dublin

Look, we've already come unstuck on two previous competition questions, we can't possibly back down again. Your Irish history books may well split up the war like that, but as far as we're concerned the gap between the two phases was all part of the war which therefore lasted 1337-1453. 116 years. Can we return to computing, now please?.

Modems minus

Firstly I must state that I am probably one of your older generation (that is over 21) of readers and let me compliment your layout of the magazine and its content. It has a nice balance of gossip, reviews and some down to earth news.

For what it's worth, the only thing that is missing in my opinion is a modem/comms section and this is what has prompted me to write this letter to you. I have logged onto many BBs (bulletin boards) in the London and surrounding areas and the biggest problem seems to be that hardly any cater for the Amstrad – so how come????

I would warmly welcome any Sysop that would cast an eye to this situation and I'd be even willing to pay a nomninal subscription to support any such board. There are a few that have a very small Amstrad Section eg. the Lair 01 502 4543 and Alice's Restaurant 01 882 7573. When I have chatted to both of these Sysops they state that they only have around 8 callers or so.

If other CPC users were to call more and use these sections regularly then the Sysops would be more willing to make these sections exclusively to CPC Users by issuing them with a password, thus denying access to any other terminal.

BBs are a great way of exchanging ideas, selling or exchanging software etc. So how about a mention to other readers and let them find out for themselves all the benefits to be had from these BBs? I have compiled a list of BBs who have an Amstrad Section and they are as follows:-

The Compost Heap 0622 46036
Marctel 01 346 7150
N.B.B.S. 01 455 6607
The Lair 01 502 4543
Alice's Restaurant 01 882 7573

All of the above are on 1200/75 and 300/300 and run 24 hours, 7 days a week. I must finally say that I am plugging them for no other reasons apart from the fact that I'm fed up with only seeing my own name on them and I would love to see some new messages from other Amstrad users.

Terry Connell
London SE9

Thanks for the tape

Thanks to you for the splendid cassette free with the May issue of "Amstrad Action". "The Covenant" has given me many long frustrating hours of pleasure completing the task (much to my wife's disgust).

I enclose a photograph of my completed screen showing a score of 55,288 in just under six and a half hours and hope to be acclaimed Covenant Champion in your "Hi-Score" section.

Must go to replenish energy.

Brian Smith
Ashford, Kent

Not bad, not bad. That type of score was impossible until our free tape came along because earlier versions of the game contained a bug which made it impossible to complete.

I thought the demo games were great. When in your review of Get Dexter you said it had lots of little details I soon found out what you meant. When I played the one screen one of the first things I did was to jump on the swivel chair – you swivel alright and then fly off! I was thrilled by Swords and Sorcery – it's just like D and D, almost like the real thing. Doomsday Blues has far bigger playing area than I would have thought for a demo game – pure brilliance. And last but not least, B of B. My friend spent almost all day playing on it and he said "Best game for ages". All in all a few games that will put PSS back on the map.

Simon Hunt
Corsham, Wilts

May I congratulate you on the practical joke you played on your readers in the May issue. Not content with giving us a free game on a cassette which cannot be simply loaded from tape to disk, you went to some lengths to explain to everyone that it was a slow loader (it wasn't) and provided a program to transfer it to disc (it wouldn't).

Other than this gripe I must congratulate both you and PSS on your vision and marketing. A cassette of demonstrations provides a far better taster for the buying public than any number of full page adverts promising super fast graphics and mind blowing sound. After all, one second's play is worth 25 screen shots. Seeing some kind of working program also gives the prospective buyer some confidence that at least part of the program is written. (Ocean and US Gold, are youlistening?)

All in all these demonstration tapes are a great idea. Keep it up.

P Marson
Bristol

We printed the correct disc transfer listing last month with our apologies.

I would like to draw your notice to a small bug in the Covenant program last month. In my tape, if I re-enter a sector after just leaving it I find a ghost has materialised and that I have to kill it before it kills me. This is rather hard especially as it is invisible. Could you please tell me if this is supposed to happen?

I know that you have had this said to you a thousand times but I think your magazine is the best out of all the others. The mag is fresh and it lightens up my day and 'Oscar' (my 464). thank you!

Robert (Bob-a-job) Carter and Oscar
Boston, Lincs

First we've heard of that bug. If it's invisible, how do you know it's a ghost?

Drumkit – it's yours

Scanning through the letters page of the last issue, I noticed a couple of people having problems typing in my Drumkit program. If anyone wants a copy the lazy way, I can provide one on receipt of a cassette or disc and enough return postage. The address is the same as for the new Adventure Writers (and players!) club we are setting up, namely:-

Camel Micros
Wellpark
Willeys Avenue
Exeter
Devon
EX2 8BE

which has a great library of free software for members (plug!).

John Keneally
Exeter

Program swapping

Could you please put the following letter in next month's reaction page:

"Interested in swapping tips and software?!! I have a large amount of disk and tape software and I would like to hear from Amstrad owners in England and Ireland. Please send your lists to:"

John Bourke
Ireland

Sorry, John, we're not printing your full address, because we don't support software swapping. Something to do with the fact that most people who swap software tend to keep a copy for themselves. Guess who loses out?

They're not free

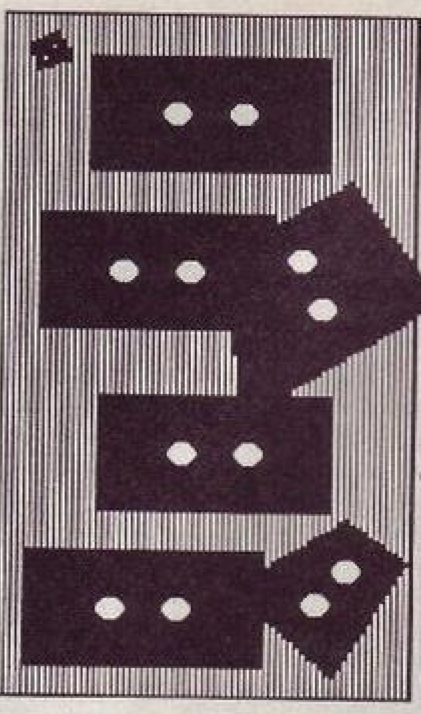
Perhaps you could satisfy my curiosity on a small point and, at the same time reinforce your reputation for answering criticisms openly and frankly.

You advertise "free" games given away with new subscriptions to AA and yet I calculate that you are charging £4.50 more for a one year subscription than the equivalent newsstand cost. Why? I know that postage and packaging costs have to be considered, but I would have thought that would be substantially offset by the percentage of the cover price you don't have to pay the newsagents on issues bought through subscriptions.

So why the extra £4.50? Could it be to repay the costs of the "free" tapes? I think your readers would appreciate a response in the mag.

M Girouard
Tadworth, Surrey

Do I detect a cynical mind at work here? Yes we do lose a substantial proportion of the cover price on magazines sold through newsagents and therefore do better out of copies sold on subscription. On the other hand, there are considerable costs involved in running a subscription service. I think the fairest thing is to compare our subscription costs with other Amstrad magazines – they're roughly the same. Except that we offer free software worth almost the full amount of the subscription.



Ludicrous suggestion

I'm not one for putting pen to paper, but couldn't resist replying to Richard of N. Ireland's letter in your May edition. In his letter he condemns the release of such games as Raid over Moscow and Theatre Europe.

The suggestion that such games are likely to have any significant effect on East-West relations is ludicrous. Also from what I've seen of Theatre Europe, it certainly doesn't treat the subject of nuclear war lightly. The very fact that the nuclear option is practically a no win option is enough to put the fear of God into anybody, and deter anybody from using it.

If any person is influenced by these games then they must already be maniacs.

Right, I'll put my Soap box away now. Thanks for a great magazine, the touches of humour such as that seen in the reply to Mark Smith's letter (May issue again) add very much to the enjoyment. Please keep it up.

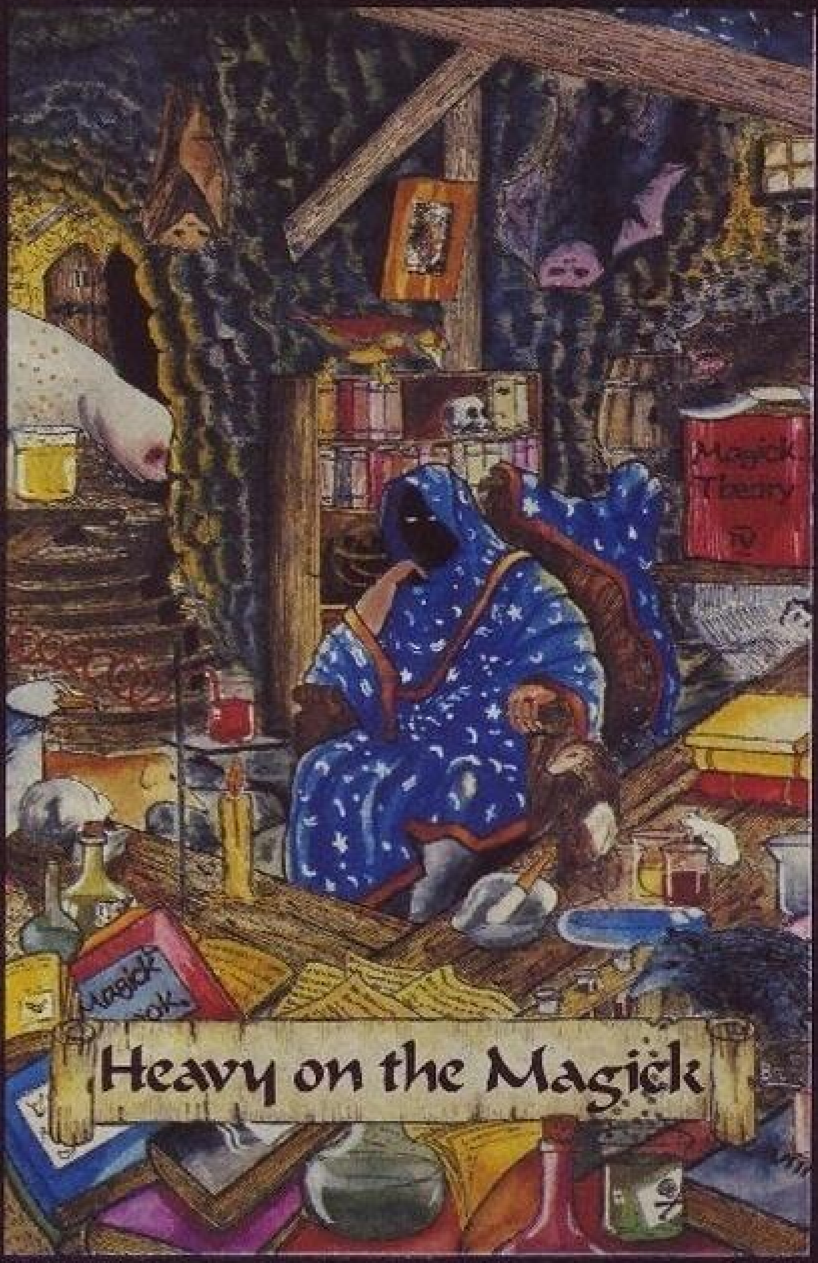
Whilst writing I would like to ask any readers interested in joining a new Amstrad User Club, particularly in the Calderdale area, to please contact me as soon as possible. I have no experience in the setting up and running of clubs so I am also looking for tips from prospective members and also anyone who is currently involved in the running of a club.

Andrew M Coote, 16 Matlock Street, Lee Mount, Halifax, W. Yorks, HX3 5ED

Heavy on the Magick

CONVERSATIONS WITH APEX

THE DOUBT OF RABAK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Magick Book
Heavy on the Magick

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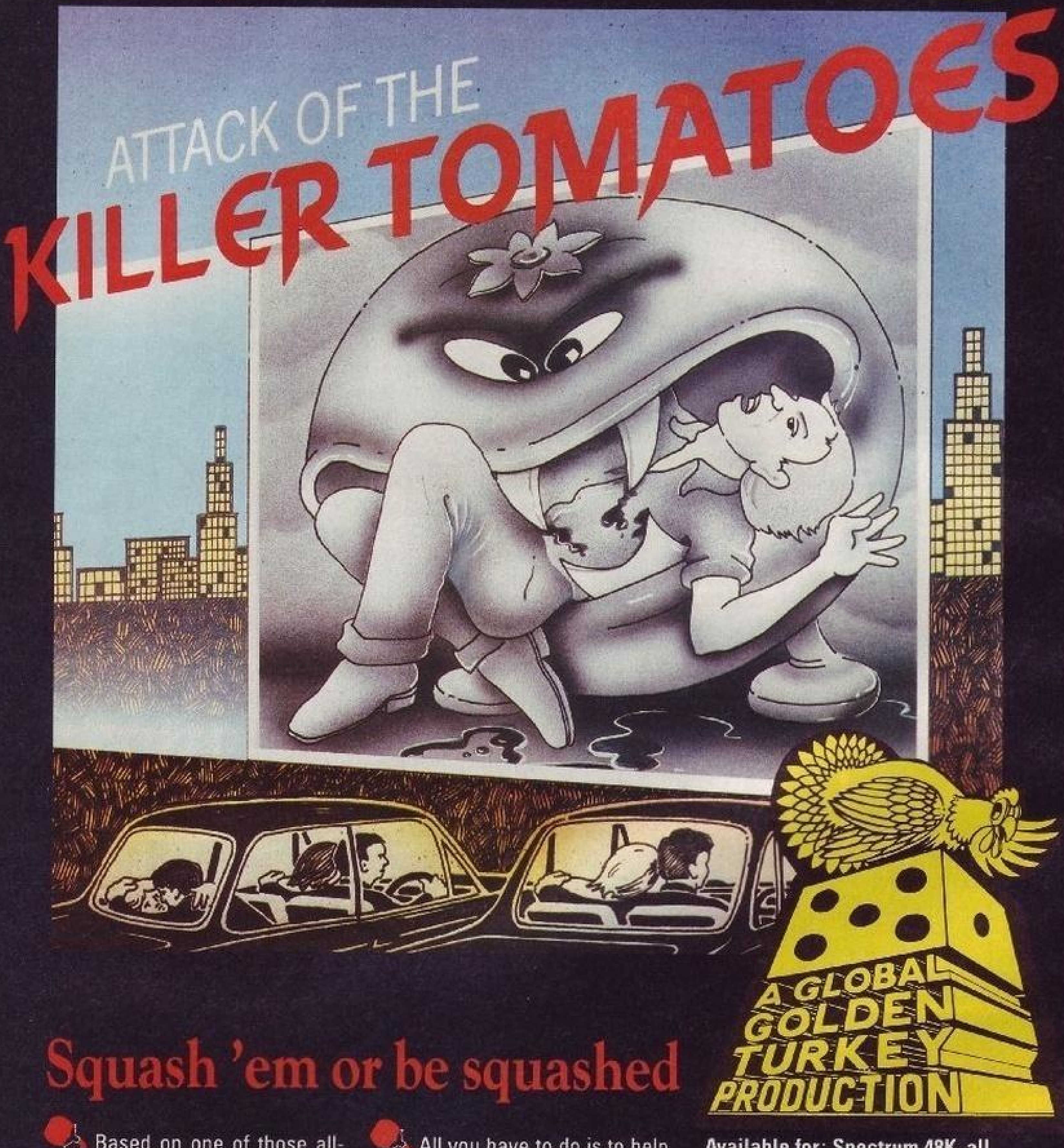

Squash 'em or be squashed

- Based on one of those all-time lows in the world of movie making that were actually nominated for a Golden Turkey Award, the Attack of the Killer Tomatoes squelches on to your screens courtesy of Global Software
- It's a bit of a sauce, really. There's Wimp Plasbott, working away in the PuraTom (tm) processing plant, when suddenly, several hundred killer tomatoes turn on you.
- Rotten, aren't they?
- All you have to do is to help Wimp keep the Pizza Parlours well supplied with purée while attempting to hammer the reds before they can do the same to you.
- Sounds absolutely killing, doesn't it?
- But can you stand the sight of rivers running red? And have you got the bottle for it?
- If you haven't, hard squish!

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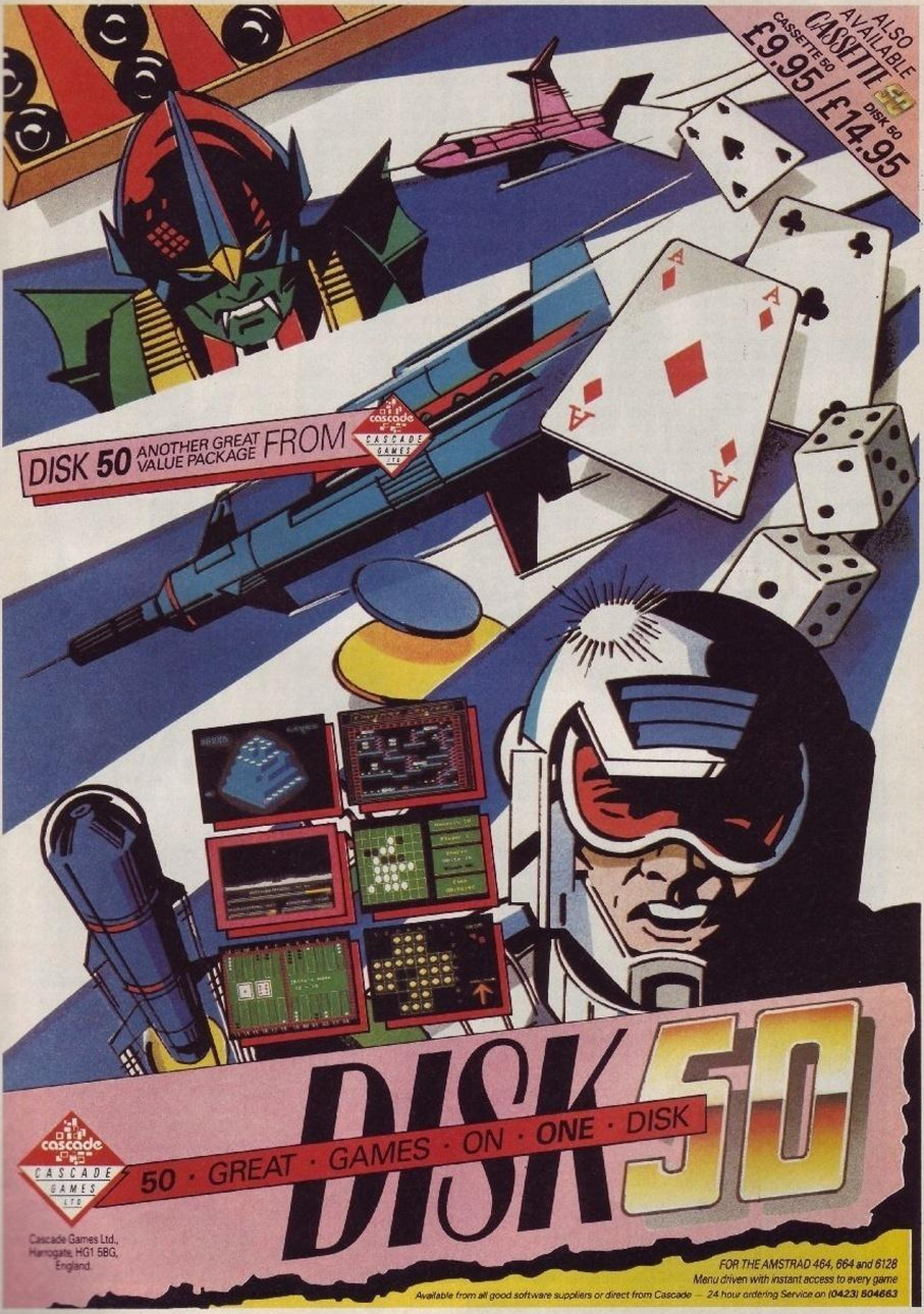
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AMSTRAD SPECTR

TO PC OR NOT TO PC?

Despite continual denials, rumours still abound concerning the Amstrad micro to follow the PCW 8512. Will it be an IBM PC compatible? Amstrad are saying nothing but the grapevine is humming.

It has long been rumoured that Amstrad are about to launch an IBM PC compatible, though nothing has been officially announced yet. If Amstrad does, it will certainly be a nice addition to the range.

Their purchase of the Sinclair name, together with the CPC 464, gives them virtual domination of the entertainment market. The 6128 is a good all-rounder while the PCW models are dominating the small business market. Indeed larger companies are even using them as cheap terminals to mainframe computers. A PC compatible would certainly provide an inroad to the business market as a whole, but how can Amstrad make it different from any other cheap compatible?

The IBM PC was launched several years ago, and quickly became an industry standard simply because of those three magical letters 'IBM'. International Business Machines had become the company for mainframe computers, giving rise to the adage 'nobody ever got fired for buying IBM'. This, together with the company's huge size, gave an instant advantage over anyone else.

Other companies could either compete in vain, or give in and produce models that were compatible with the IBM PC (could run software written for it), but were faster or cheaper. Even large companies such as Olivetti, Compaq, Tandy and Ericsson, to name but a few, succumbed to the pressure. The pressure comes from the huge library of software written for the IBM PC – possibly bigger now than the CP/M library.

Recently a whole bunch of cheap 'Tiawanese compatibles' have hit the market. Made in the Far East and imported here, these have forced the price of compatibility down towards the £500 level, and it is against these that Amstrad will have to compete.

So what are the rumours? Rumour has it that the PC compatible will be launched at the Amstrad show in Hammersmith this month – or at the PCW Show in September, depending who you talk to. Rumour has it that it will come with Digital Research's GEM, an operating environment rather like that of the Apple Macintosh; and with DOS-Plus, an operating system very compatible to the MS-DOS of the IBM PC.

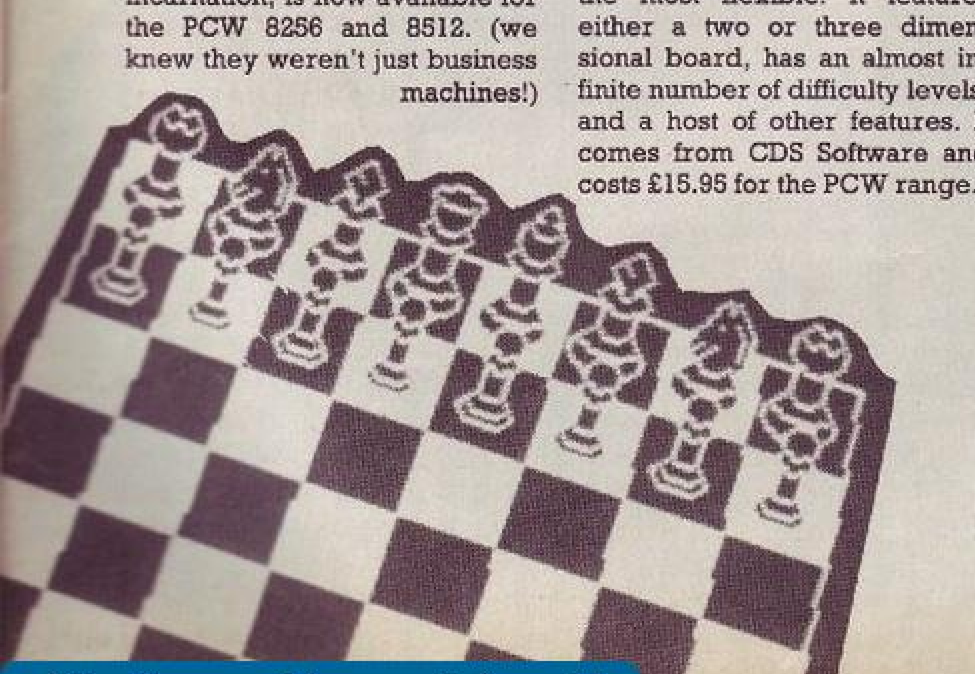
Rumour has it that two models are in the offing: the first a monochrome model with 128K of Ram and selling for £399, the second a colour version with 256K of Ram and a price tag of £499; both complete with printer. Those are the rumours, but so far there is little to substantiate them. A spokesman from Amstrad said 'I'd buy that, if it existed', but Amstrad have always been quiet about new products until they are launched. Very few journalists knew anything about the PCW until launch, and by then it was pretty well in the shops.

So it looks like we will have to wait. Suffice it to say that if the rumours are true, it will be quite a machine.

Colossus Chess 4

This powerful chess program, already an AA Rave in its CPC incarnation, is now available for the PCW 8256 and 8512. (we knew they weren't just business machines!)

Besides being the most powerful chess game available for the Amstrad range, it is also the most flexible. It features either a two or three dimensional board, has an almost infinite number of difficulty levels, and a host of other features. It comes from CDS Software and costs £15.95 for the PCW range.



Music by Arnold

At £129.95 this package may sound expensive, but it claims to turn your CPC into a complete recording studio. Called *The Performer* this is a MIDI-based system that allows you to write, record and play up to eight seperate tracks of music in 'realtime'.

This MIDI (Musical Instrument Digital Interface) is a standard that has been accepted by most electronic synthesiser mamnufacturers for the digital control of their products. Using it your computer can send signals to control the pitch, envelope, tone and other parameters of a series of MIDI instruments – which can allow you to produce totally professional results.

The Performer, from Proteus Computing, includes the software and MIDI interface. You have to provide the sysnthesiser, but this sort of system is still considerably cheaper than studio time!

Converting the 8256

Feeling hard done by, all you 8256 owners? No longer the envy of your friends? Citadel Products may have the answer with an upgrade kit to convert the humble Joyce into an 8512.

The Radec U512, as it is fetchingly called, comes with the second 800K disc drive and the extra RAM, giving you a RAM Disc of 368K. Citadel claim that it can be fitted in less than 20 minutes if you know how to change a fuse, and requires only dexterity with a screwdriver and a small hacksaw. If you are scared of playing around with Joyce's innards then you can always go to one of Citadel's dealers who will do the job for you.

The kit costs £189.95, including delivery, and can be bought direct from Citadel on 01-951 1848.

Name change

Microfile, reviewed in our June issue, has changed its name. Cornix Software are now calling it *Cornix Card-Index*, because of other products with the same or similar titles on the market. Is this the start of a trend?

Leather on willow...

Fancy yourself playing for England (Oh the glory!), then this could be the one for you. Audiogenic have just released *Graham Gooch's Test Cricket* on CPC cassette and disc. It is meant to be a faithful simulation, with sound effects and speech. Prices are £9.95 and £14.95 respectively.

Let's hope it's not as boring as the real thing...(ducks to avoid ensuing flack from cricket fans).

The ultimate database?

That grandaddy of databases, *dBase II*, is now available for the PCW 8256 and 8512. First Software have finalised a deal with publishers Ashton Tate to launch the package at the price of £119, instead of the £400-odd that is usual for this title.

dBase II, despite its age, is still regarded as one of the most powerful and flexible databases around. This is largely because it is a programmable database, with its own language that is

Amstrad's own modem

Amstrad have made a deal with Pace to market the Nightingale under the Amstrad label. This excellent modem, priced by Pace at £136, can communicate at V21 and V23, allowing connection to most bulletin boards as well as Telecom Gold and Prestel. As such it caters for 300 and 1200/75 baud rates and is switchable between Originate and Answer modes, though it does not feature auto-dial or auto-answer.

Amstrad are to sell it at a budget £99.95, complete with a three-month subscription for Prestel and Micronet 800. Sounds like a good deal, though you will still have to get an RS232 interface and suitable communications software.

DIY PUBLISHING

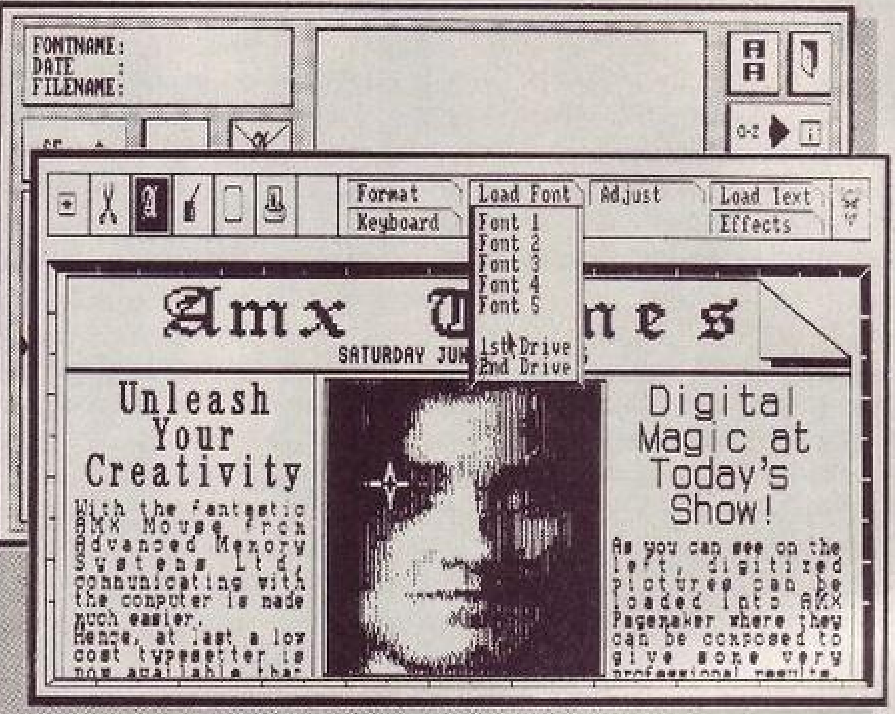
Fancy trying your hand at publishing but never quite got around to it? Advanced Memory Systems might have just the thing to provide the incentive. At long last *AMX Pagemaker* is available for the 464, 664 and 6128.

This highly successful program is part of a new species of software that is taking a high profile at the moment – partly thanks to the efforts of Eddy Shah, and that little factory down in Wapping.

AMX Pagemaker won't let you produce the Sunday Times from your bedroom, but it will let you have a damn good try. It is a combination of word processor, graphics package and typesetter. With it you can lay your golden prose into column grids on a page, interspersed with the occasional work of art. Pictures can be stretched, shrunk and moved around the page, and your copy set in a variety of typefaces.

The package comes on two discs and is designed to be used with the AMX mouse system. It sells for £49.95, and will compete with Mirrorsoft's *Fleet Street Editor when that appears in the shops.*

Also available for the CPC range is AMX utilities, a support package for the mouse that enables you to enhance pictures created using *AMX Art*. It is priced at £14.95 for the cassette version, and £19.95 on disc.



FONTNAME:
DATE :
FILENAME:

Amx Times
SATURDAY JUN

Unleash Your Creativity

With the fantastic AMX Mouse from Advanced Memory Systems Ltd, communicating with the computer is made much easier. Hence, at last a low cost typesetter is now available that

Digital Magic at Today's Show!

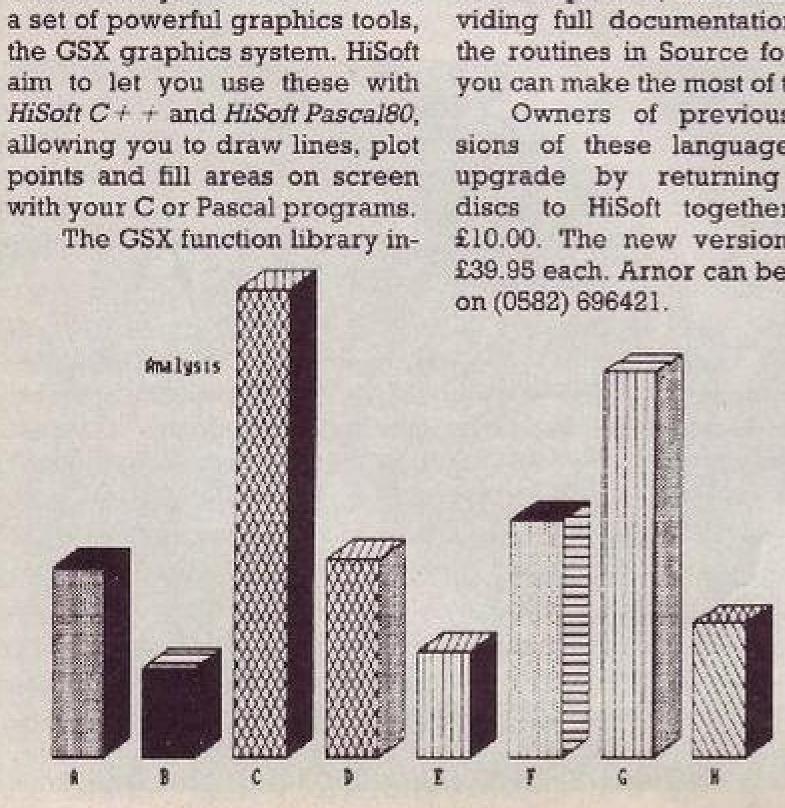
As you can see on the left, digitized pictures can be loaded into AMX Pagemaker where they can be composed to give some very professional results

Graphics for programmers

Hidden on one of the discs that comes with your 6128 or PCW is a set of powerful graphics tools, the GSX graphics system. HiSoft aim to let you use these with *HiSoft C++* and *HiSoft Pascal80*, allowing you to draw lines, plot points and fill areas on screen with your C or Pascal programs.

The GSX function library incorporates around 30 routines that allow you to unlock the full potential of these machines' high resolution graphics. Even more important, HiSoft are providing full documentation, and the routines in Source form, so you can make the most of them.

Owners of previous versions of these languages can upgrade by returning their discs to HiSoft together with £10.00. The new versions cost £39.95 each. Arnor can be found on (0582) 696421.

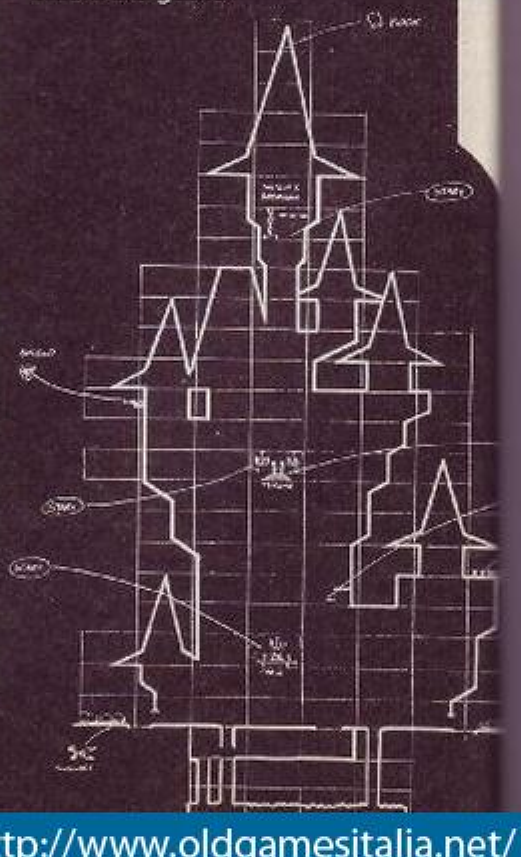


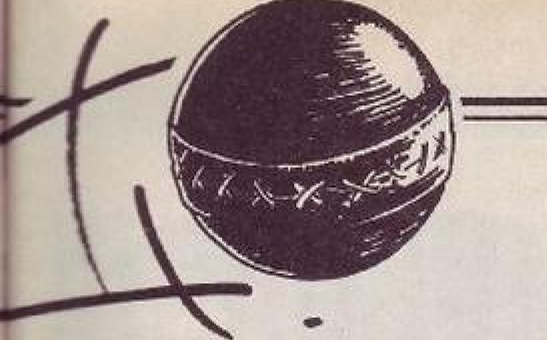
The Cauldron continues

Fans of *Cauldron* from Palace Software, which includes us as we made it an AA Rave, will be pleased to hear that Part II has been released. Subtitled *The Pumpkin Strikes Back* it is more of an arcade/adventure, and follows on from where *Cauldron* left off.

In the first episode you took the part of the Witch, defeating the Evil Pumpkin and retrieving the Golden Broomstick to become Witch Queen. In *Cauldron II* you switch sides and become the last surviving pumpkin, whose mission is to defeat the Witch Queen. Sounds like a recipe for schizophrenia to me...

The Queen's castle, where the action takes place, has over 100 rooms. As usual anything that moves can kill you, but you gain magical powers as you search for the objects needed to finish the game.





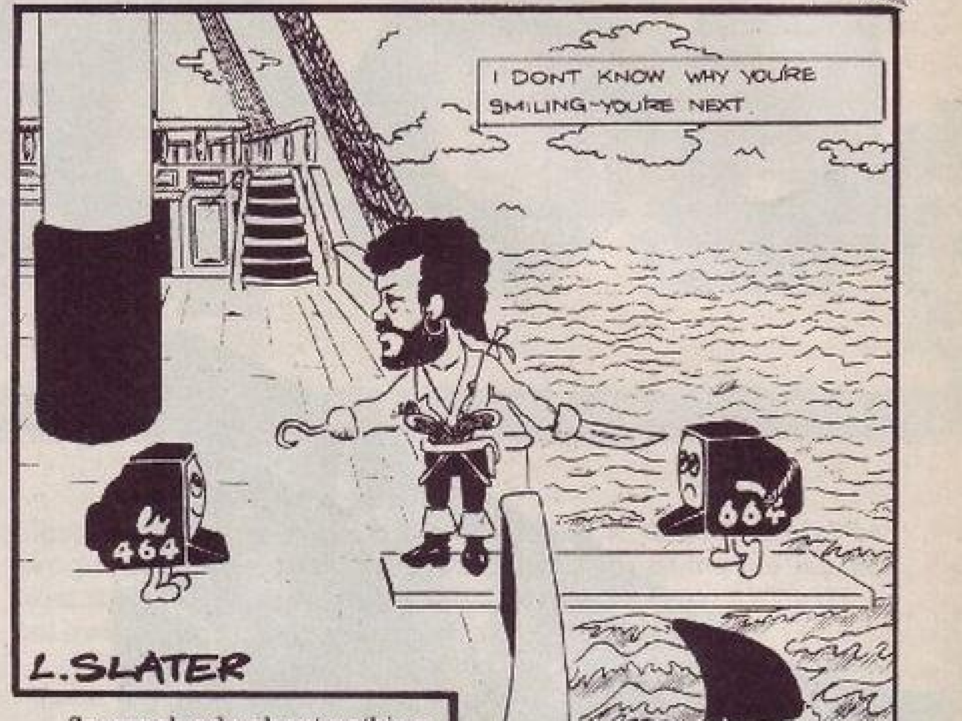
similar in use to Basic. It is an industry standard in the same vein as Wordstar.

First Software are also offering a telephone 'hotline' to provide instant help to those with problems. It will cost an additional £40 a year and will be on their main phone number – 07357 5244. A lot to pay, but these are the sort of prices that business micro buyers are used to!

Save the 464

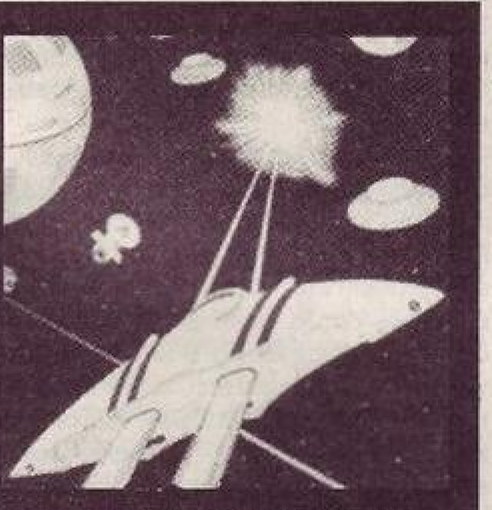
Or does it need saving? Not according to Amstrad who say it is still in full production, and still selling well.

The purchase of the Sinclair brandname, and rumours of a new 128K Spectrum with built in cassette deck caused concern over the future of the CPC 464. At the time Alan Sugar stated that he viewed the Sinclair name as Amstrad's 'Entertainment' label, leaving Amstrad itself to look after the business side. The 464 looked like the piggy-in-the-middle, and soon for the chop. However a spokesman from Amstrad stated that production is still in full swing, the 464 is selling well; and that, as it comes complete with monitor, it is not regarded as a competitor for the new Spectrum.


I DONT KNOW WHY YOU'RE SMILING–YOU'RE NEXT.
464
664
L.SLATER

So, much ado about nothing then? We hope so, but if you have trouble getting hold of a 464, write and tell us about it.

BATTLE STARS



With a scenario drawing heavily on the films 'Battlestar Galactica', 'Star Wars' and 'Return of the Jedi' (and no bad thing either), *Battle Stars* is the new game from Microbyte Software. You find yourself in charge of the star cruiser Galaxy One, and your task is to penetrate the outer shields of a Cyborg Battle Star, launch a Ranger Craft full of Jet Bike Commandos, enter the Battle Star and destroy its reactor cooling system.

This is accomplished by means of three seperate game sequences, each using different display techniques. the first is the 'Deep Space Mission', which is depicted in vector graphics; next is the attack on the Battle Star, using full colour 3D sprites, and finally comes the Jet Bike tasks, utilising scrolling screen displays.

It looks like a mammoth game, involving puzzles as well as high speed reactions. We look forward to reviewing it soon.

Joyce meets Protext

The *Protext* word processing system from Arnor is now available for the PCW range. This powerful package has received much acclaim on the CPC models, together with its accompanying *Prospell* spelling checker and *Promerge Plus* mailmerge system. Now all three packages are available as a single system for £79.95, or *Prospell* itself can be bought for £39.95.

Prospell comes with a dictionary of over 30,000 words and can check *Locoscript* or *Wordstar*-type files as well as documents created under *Protext* itself. Arnor claim it can even be used to solve anagrams.

So if you've had enough of *Locoscript*, *Protext* could make a viable alternative.

COMPETITION WINNERS

We received a massive response to both the Tomahawk and Ocean competitions which appeared in the May issue. Twenty five winners were selected per comp, but if your name doesn't appear below don't despair. Who knows, next month could be your lucky month!

TOMAHAWK

The Correct Answers:

1. What is the nationality of the world's largest helicopter?
Russian

2. When was the first flight of the Apache helicopter?
1975

3. What is the crew capacity of the Apache?
Two

4. Which helicopter is used by the RAF for Air-Sea rescue?
The Wessex

5. Who wrote *Tomahawk?*
D. Marshall

6. What technology does an Apache pilot use to see at night?
Infra-red

Winners:
Mr G J Williams, Wallasey; **M Knight**, Harrow; **Howard Martin**, Cumbria; **T Chance**, Bickley, Kent; **Daniel Castle**, Marlborough, Wilts; **Gordon Sutherland**, Elgin, Morayshire; **Murray Urquhart**, Inverness; **Darren Sharpe**, Boston; **Sarah Barnes**, Plymouth; **I G S Elmslie**, Camberley; **Cameron D Kane**, Glasgow; **Keith John Jenkins**, W Sussex; **Spencer Pier**, Bournemouth; **Alistair Alexander**, Fife; **K Smith**, London SW2; **Mr Ray Absolam**, Southampton; **R M Woolner**, Hitchin, Herts; **Johnathan Wyatt**, Weymouth; **Bruce Munston**, Lowestoft; **William Moffatt**, Shepperton, Middx; **Alistair Irving**, Ayr, Scotland; **Darren Elbro**, Birmingham; **Mr S J Reardon**, Braintree, Essex; **Mr J Daniel**, Stroud; **R Stimpson**, Harlow, Essex;

OCEAN

The Correct Answers:

Batman

1. Which of the following three biscuits is a fiendish foe of Batman?
Penguin

2. What was Batman's real name?
Bruce Wayne

3. Who was the Gotham City's Chief of Police?
O'Hara

Frankie

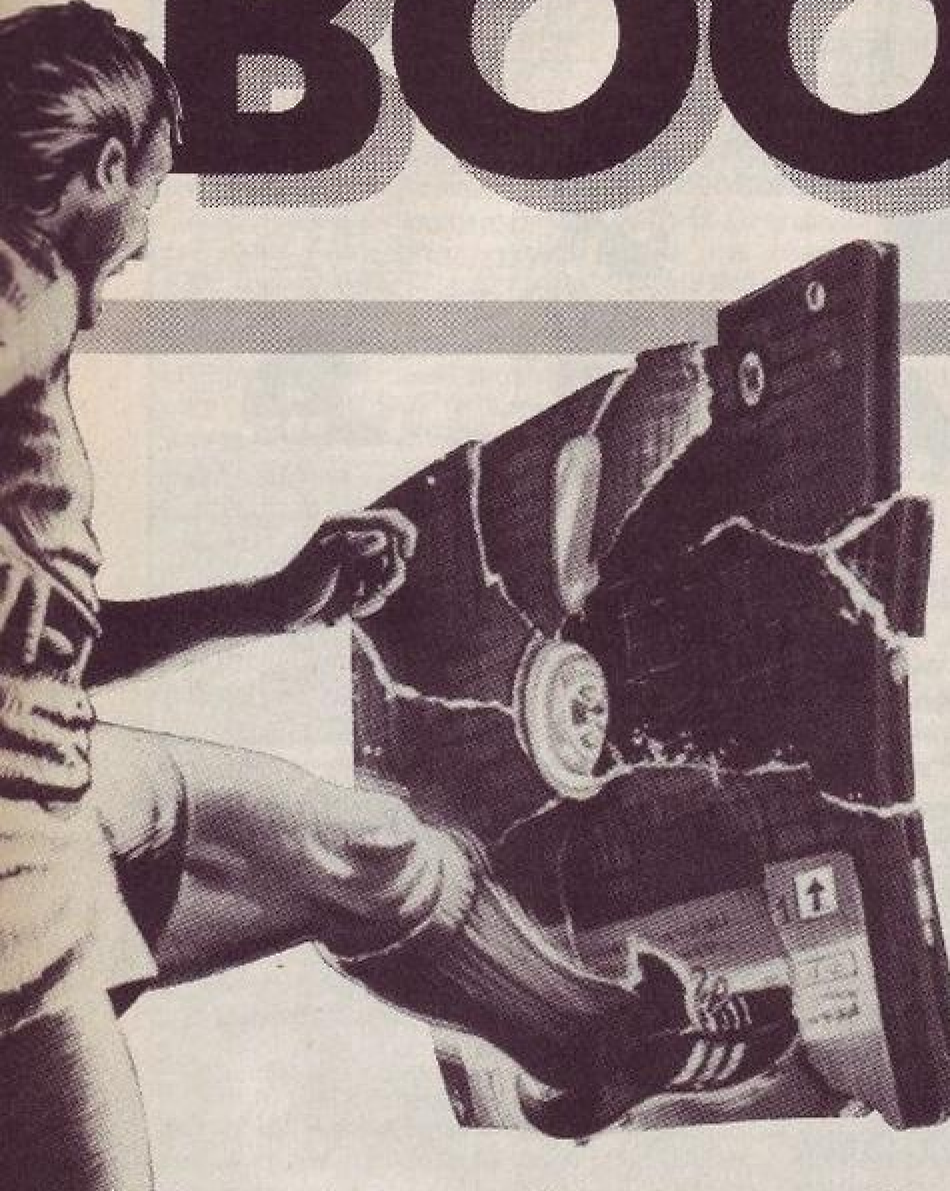
1. What was FGTH's first hit single?
Relax

2. Who built the Pleasure Dome?
Kubla Khan

3. Who is FGTH's lead singer?
Holly Johnson

The winners:
Mr C Pettigrew, Ayrshire; **David Rice**, Glasgow; **Mr D E Hitchcox**, Leeds; **Warnath Wijayawardana**, Brackley, Northants; **Nicholas Drake**, Brentwood, Essex; **Shane Wing**, Woking; **Sakib Mahmood**, Cardiff; **George Davenport**, Glasgow; **Nicholas Baird**, Fareham; **Craig Rickaby**, Co Durham; **Michael Simpson**, Eastbourne; **Kevin McDougle**, Northumberland; **Paul Greene**, Rayleigh, Essex; **David Pratt**, Runcorn, Cheshire; **Kurt James**, Lymm, Cheshire; **Anon**, London NW7; **Ian Berriman**, Hull; **Mr P Jolleys**, Wigan; **Marc Armstrong**, Ipswich; **Daniel Horst**, Harlow; **Chris Brown**, Isle of Wight; **Matthew Perry**, Leicester; **Miss Ganer Purcell**, Liverpool; **Anon**, Herts; **Lee Bayley**, Stockport.

BOOTING



The operating system of a computer is something that most of us take for granted – if we are aware of its existence at all. But CP/M, the operating system supplied with the Amstrad 6128 and PCWs, is a powerful system that can transform the way you use your machine, if you know how.

Over the next few months Matt Nicholson will be showing you how to make the most of CP/M. Part One starts here!

You have probably realised by now that computers are pretty dumb. If you have ever had to work your way through a badly-written Adventure game, or tried to sort out a simple mistake in a program listing, you are probably convinced they are very dumb. You are not wrong, but in fact computers are even dumber than that.

The basic machinery, the hardware if you like, has no conception of how to display a letter on the screen, or how to load a tape from the cassette player, let alone how to become dangerous at Elite! Everything the computer does is controlled by the software. This software, in the form of programs, comes in a variety of forms: as cassette games, on discs, or in ROM (Read-only memory) chips built into the computer.

Arnold comes with the Basic programming language already in ROM, and 'boots-up' Basic when turned on. This means that the program called 'Basic' is automatically loaded and run as soon as you flick the power switch. But something has to tell the computer to do this when power is applied. That something is the 'operating system'.

It is the operating system that breathes life into the computer. With it you can press a key on the keyboard and get a reaction on the screen. Without it the machine is totally dead, and might as well not be turned on. It is the operating system that knows how to read information from the keyboard, how to display information on the screen, how to send data to the printer, and where everything is stored in memory.

Every computer has to have an operating system of some sort. But it was not until the use of floppy discs for data and program storage became widespread that the idea of a standard operating system, common to a wide range of models and makes, was developed.

Storing information on discs is not a simple matter. Discs can store an awful lot of data: 178k with the 6128 and 8256, and 720k on the second drive of the PCW 8512. The discs have to be 'formatted' in an orderly manner; so new data doesn't overwrite old, and the operating system can keep track of where everything is.

Handling disc storage is the most complex task that an operating system has to handle – indeed many operating systems are called 'disc operating systems' for that reason, or DOS for short. Eventually it occurred to someone that if all computers stored data on discs in the same way, then one machine could read another's discs, regardless of make, race or creed. Extending this principle to the computer system as a whole: any computer could be made to appear like any other computer to the software, which means that any program could run on any machine – a tremendous boon to software writers! In effect the operating system would create a 'virtual machine' that could make all computers appear the same regardless of how they stored data on the disc, or displayed on the screen.

An analogy can be drawn here between a computer system and a busy office with filing cabinets, telephone systems and all the other paraphenalia that go to make up an office. The operating system is rather like the secretary. Every office has a different filing system, but you only have to ask your secretary to file a document; you don't need to know how it is done. And, providing all secretaries speak English, you should be able to get a document filed correctly in any office – regardless of the filing system actually in use.

The CP/M operating system was, for all intents and purposes, the first universal operating system to gain any sort of widespread acceptance in the micro-computing world. This was largely a matter of chance: it just happened to be in the right place at the right time. It was a powerful and friendly system by the standards of the day, and was ideally suited to the popular Z80 micro-processor with 64K of memory – the same processor as that used throughout the Amstrad range. Even now it is still possibly the most widely used operating system in the world, though it has been rather overshadowed by MS-DOS, a more powerful system designed for use with 16-bit computers such as the IBM PC. However there are still thousands of applications written for CP/M systems, all of which can potentially be used with Amstrad micros.

TIME FOR ACTION!

But enough of this. It is time to turn the old computer on and get down to some practical work. Wait for the screen to clear and then insert the disc marked 'CP/M' or 'CP/M PLUS' into the disc

UP CP/M

drive. If you are using an Arnold insert it with the CP/M label upwards; if you have a PCW the label should be facing to the left. Soon after this the drive will make a whirring noise and the red light by the drive will come on. This indicates that CP/M is 'booting': automatically loading into the memory.

After a short time the screen will display its opening message, which may not mean an awful lot at this stage. Fear not. The important thing is the **A**> that appears on the bottom line. You will see a lot of this over the next few months!

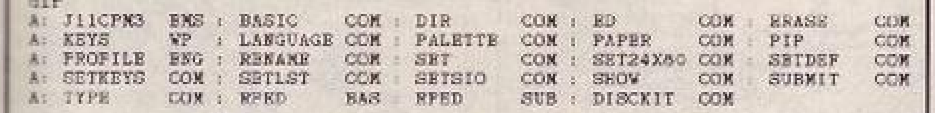
This is the 'A-prompt', and is the prompt for you to enter your instruction to the machine. Like Basic, the CP/M operating system understands a variety of commands. Though it is by no means a full computer language, it nevertheless can perform some quite complex tasks from this prompt.

In fact it is the arrow that is the prompt. The 'A' simply tells you which is the active drive – the drive that the computer is taking its instructions or data from. If you are lucky enough to have an 8512, or a second disk drive attached, then the second drive is labelled drive 'B'. If you type **B:** after the prompt, and then hit Return or Enter, the prompt changes to **B**> to indicate that you are now logged on to the other drive. You can return to the first drive by typing 'A:' and Return.

You can change drives even on a single disk PCW machine, by changing to the Ramdisk. This is labelled drive 'M', so simply enter **M:** to log on to the Ramdisk. Don't forget to return to drive A afterwards!

DIRECTORY

It is now time to meet one of the most useful commands CP/M has to offer. At the A-prompt type **DIR** and Return. It doesn't matter if you use upper or lower case letters – CP/M understands regardless. The disk should chunter quietly to itself for a few seconds, and then the screen should look something like this:



```
dir
A: J11CPM3  EMS : BASIC    COM : DIR      COM : ED       COM : ERASE    COM
A: KEYS     WP  : LANGUAGE COM : PALETTE  COM : PAPER    COM : PIP      COM
A: PROFILE  ENG : RENAME   COM : SET      COM : SET24X80 COM : SETDEF   COM
A: SETKEYS  COM : SETLST   COM : SETSIO   COM : SHOW     COM : SUBMIT   COM
A: TYPE     COM : RPED     BAS : RPED     SUB : DISCKIT  COM
```

You may find your screen looks a little different. This is because the versions of CP/M issued with the 664 and 6128 differ slightly from that with the PCW models. It should bear a resemblance to the above though.

This list is known as the 'directory' of the disc, and was summoned by the DIR command. It basically shows you what programs or data are stored on that particular disc. Each program, or each chunk of data is stored in its own 'file', which can be thought of just like the individual files in a filing cabinet. One file might be a computer game, another might be the first chapter of your best-selling novel – written using a word processor in another file.

Each file also has a unique file name consisting of up to eight letters, followed by a file-type of up to three letters. The two parts are seperated by a full-stop. Some of the file names from the list above are ERASE.COM, RPED.BAS and KEYS.WP – but note that the full stop is not shown in the DIR listing.

File names can be made up from any of the numbers or letters on the Amstrad keyboard, and most of the symbols available too. File names can be typed upper or lower-case, it doesn't matter because Arnold treats all file names as upper-case; however some symbols should not be used as they have other uses in CP/M and would cause Arnold to get confused.

▶

HISTORY LESSON

For those of you who like to put these things into perspective, the CP/M operating system was developed by a Gary Kildall in America while he was working for the Intel micro-chip manufacturer. Intel had produced the first micro-processor powerful enough for a micro computer in 1973 – the 8080 as it was called. What was needed was an operating system and, as the floppy disc had just appeared as a viable storage device, Gary decided that his operating system should make the most of the new medium. So CP/M was born.

But Intel had made the amazing decision to phase out the software development division and Gary was left to finish CP/M on his own. Together with some colleagues he formed the company Digital Research in 1976, who hold the copyright of CP/M to this day.

The 8080 was, understandably, a huge success. It was only surpassed a few years later by the more powerful Z80, developed by another splinter group from Intel called Zilog. The Z80 became the basis for virtually all business machines, and CP/M became the standard micro operating system. It was only surpassed by the development of 16-bit micros and the growth of MS-DOS, but that is another story. On the home side, the Z80 was adopted by Sir Clive for the ZX80 in 1980 (a coincidence?), the ZX81 and finally the Spectrum. It is this processor that is in the Amstrad range too.

VERSIONS

Like any computer software, CP/M was far from perfect when first launched and has gone through several versions to reach its present form. The first version to be offered to the general public was version 1.3, closely followed by 1.4. This was designed for the then popular eight-inch floppy disc, but it was not long before smaller disc sizes were adopted, culminating in the three-inch disc used by the Amstrad. Version 1.4 could not cope.

What was needed was a version that could cope with a variety of disc formats and sizes, both those available at the time and any that might appear in the future. Version 2.2 was developed to cope with this, and is the version most common today. CP/M 2.2 is supplied with the Amstrad CPC664 and the DDI1 disc drive for the 464. It is also one of the versions supplied with the 6128.

The other is Version 3.1, otherwise known as CP/M PLUS. Version 2.2 is very flexible, but basically designed with 64K of RAM in mind. With the advent of 128K and 256K micros, a more powerful version was needed. Version 3.1 was developed to cope with larger memory machines, but was also enhanced in other ways too. It is generally a more powerful and friendly version than 2.2. It comes with the 6128 and both PCW models.

Everything in this series should work with Version 3.1, and where 2.2 users are left in the cold we will let you know!

Avoid using these characters in your file names:

< > . , ; : ? * = [ ]

The first part of the file name is usually a mnemonic to remind you what is in there, while the second part – or file type – enables you to group a number of files together. For example, this article is stored in a file generated by NewWord and called 'CPM.10'. CPM is to remind me what the file contains, and all articles for the July issue have the file type '10' as this is our tenth issue.

You do not have to use a file type extension at all, however its use increases the power of the DIR command, as it is possible to display any subset of the full directory. This is done by using the 'wild card' characters ? and *. Try typing this after the A-prompt:

```
A>dir *.com
A: BASIC    COM : DIR      COM : ED       COM : ERASE    COM : LANGUAGE COM
A: PALETTE  COM : PAPER    COM : PIP      COM : RENAME   COM : SET      COM
A: SET24X80 COM : SETDEF   COM : SETKEYS  COM : SETLST   COM : SETSIO   COM
A: SHOW     COM : SUBMIT   COM : TYPE     COM : DISCKIT  COM
```

What you see is a list of all the files on the disc in the 'A' drive that have the file type COM; the * effectively stands for 'any combination of characters'. This can be very powerful, for example I can find all the articles that are in this issue by simply typing 'DIR *.10'.

The other wildcard, the ?, stands for 'any single character in this position. Try typing this at the A-prompt:

```
A>dir set?????.*
A: SET      COM : SET24X80 COM : SETDEF   COM : SETKEYS  COM : SETLST   COM
A: SETSIO   COM
```

what you have is a list of all files that start with the letters 'SET...', regardless of file type. The use of wild cards is powerful, and will crop up again and again in this series – but that is enough for the time being.

So in this first part of the series we have briefly met the Directory command of CP/M, and played around with the concept of wild cards. Next month we will explore DIR more fully, and look at some particularly important file types. See you then!

HOW IT WORKS!

WARNING: This next bit is very technical, and you don't have to read it unless you are a dedicated hacker and used to playing around with PEEKs and POKEs. If you're not, then don't bother!

If you turn on a PCW with no discs in the drive, you are presented with a blank screen. This is the cold hardware, with no operating system and no program running. As soon as you insert the CP/M disc a small program in ROM reads the first track of the disc into memory, and transfers control to it. This program then reads the CP/M code from the disc, and transfers control to CP/M. Once this is done you can remove the CP/M disc altogether. All the code required is in the RAM of your computer.

This process is called 'bootstrapping' or 'booting up' CP/M. This rather bizarre name comes from the phrase 'pulling yourself up by your own bootstraps'. This is of course impossible, but is effectively what the computer is doing to itself.

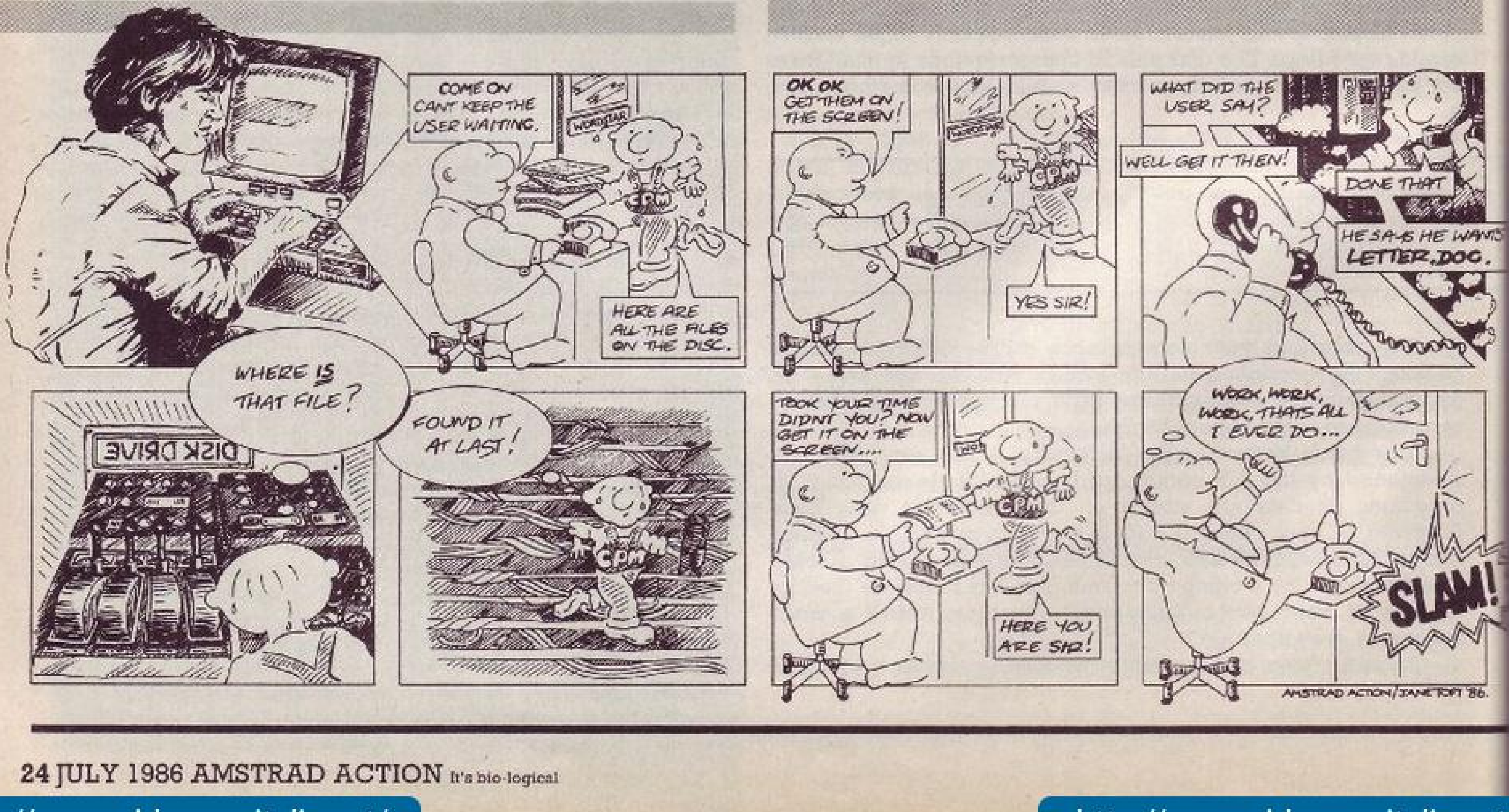
The CP/M system is not a single program, but is made up of three seperate programs that sit at the top of the 64K memory map. Right at the top is the BIOS (standing for Basic Input Output System). It is this chunk of code that translates your particular machine into a 'CP/M system', and as such is unique to each machine. As its name implies it deals particularly with the keyboard, screen, printer and any other output or input ports your machine might sport.

Below this is the BDOS (Basic Disk Operating System). This is standard to CP/M, and looks after everything to do with the disc drive. These two programs, BIOS and BDOS, form the kernel of CP/M and are occasionally referred to as the FDOS, standing for Full Disk Operating System. If you want to impress your friends – that's the one to remember!

Under this sits a smaller program called the CCP, or Console Command Processor. The CCP processes the commands made on the keyboard and checks whether it is a CP/M command, in which case it deals with the command itself. If it is not a CP/M command it looks on the disc for a command with that name – more on that later in the series.

At the other end of the memory, occupying the first 256 bytes of your RAM, is an area reserved for the 'system parameters'. These are necessary to tell the software you might be running where to find various parts of your system in RAM.

What is left between the top of this area and the bottom of the CCP program is called the TPA or Transient Program Area. It is here that the particular software you are running sits in memory. If you are using CP/M 2.2 your TPA will be about 39K in size. CP/M PLUS leaves you 61K, not because it is a smaller program but because of the extra memory available on the 6128 and PCW models. The memory map of CP/M PLUS on these machines is rather more complex than that outlined above. If you really want to know what it is like, refer to 'The Amstrad CP/M Plus' book reviewed in our last issue – but remember I did warn you!


COME ON CANT KEEP THE USER WAITING.
WORDSTAR
HERE ARE ALL THE FILES ON THE DISC.
OK OK GET THEM ON THE SCREEN!
YES SIR!
WHAT DID THE USER SAY?
WELL GET IT THEN!
DONE THAT
HE SAYS HE WANTS LETTER.DOC.
WHERE IS THAT FILE?
DISK DRIVE
FOUND IT AT LAST!
CPM
TOOK YOUR TIME DIDN'T YOU? NOW GET IT ON THE SCREEN...
HERE YOU ARE SIR!
WORK, WORK, WORK, THATS ALL I EVER DO...
SLAM!
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WARNING: Do not be misled by other adverts. There is only one "DUPLICATOR", it is the most powerful program of its type.

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"Disc Wizard" is a hardware interface that fits the expansion or floppy disc port of the **464/664/6128.** It is equipped with a through port and is supplied complete with simple instructions. **At the time of going to press we have been unable to find even one, memory resident, program that the "Wizard" has been unable to handle.**

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PLUG IN AND GO

Andy Wilton looks at the world of ROM software – three boards and a host of software, plus all you need to use them

Imagine that you could turn your Arnold on and immediately run a program without having to load it first; and that you still had the whole of Arnold's memory free for data, even though the program was 16K long. Imagine utilities and toolkits that you could summon instantly, without affecting programs already in memory. Like the sound of this? Then you need a *ROM* – or several of them, indeed.

A ROM is a *Read-Only Memory*. If that doesn't mean a lot to you, then read on.

Before you can run a program on your Arnold, that program has to be stored somewhere in his memory. Normally it will have to be stored in RAM – *Random Access Memory*. However when you switch Arnold off, any program in RAM gets wiped out. This means that every time you switch on you'll have to put the program in there all over again, by loading it from tape or disc.

Loading can be annoying, especially if you're working from cassette, but that's not the only problem with RAM programs. If you use a word processor, the text you're working on is probably stored in RAM. The same goes for the BASIC program you're working on, or the piece of machine code you're using a monitor to debug. The bigger and more powerful a RAM program is, the less room it'll have to work in, because a hefty chunk of memory is taken by the program itself.

ROM Utilities

These are a very common form of ROM program, chiefly because they're the sort of thing you want to be able to call up quickly without wiping out great chunks of RAM.

Utopia
(Arnor) £29.95
Quite a bargain, this one. It may be expensive but it's got a good set of disk/printer utilities, a full disk editor and a BASIC debugging toolkit.

Disc Demon
(Beebugsoft) £29.95
Reviewed in May's issue of AA, *Disc Demon* is a useful package, but the price is a bit steep.

Disc User's Utilities
(Superpower) £19.95
If you don't want *Utopia*'s debugging commands, this is the utilities pack for you.

Locksmith
(Beebugsoft) £29.95
As reviewed in last month's AA, this slightly dubious package is a 'transfer' utility. Its disk copier can beat some forms of protection, but it's not cheap.

Transmat
(Pride) £19.95
Another slightly doubtful package, this one's a tape to disk transfer program.

What you need is a piece of memory which is separate from the RAM, and won't be wiped clean when you turn the power off. This kind of memory is called *Read-Only Memory*, or ROM for short. The 'read-only' bit means you can't alter the contents of a ROM. You can't store information in it, you can't load a program into it, and you can't wipe it clean by switching off or resetting the machine.

Programming ROMS

The enormous advantage here is that toolkits and assemblers in ROM don't take up that precious RAM your program will need. As a bonus, you won't have to waste time reloading the monitor every time a piece of machine code crashes on you.

Programmer's Toolbox
(Superpower) £19.95
A full and well-implemented series of commands. There's a built-in mini assembler, and the 464 ROM offers many of the commands missing from BASIC 1.0.

Toolkit
(Beebugsoft) £29.95
A fair selection of commands, most of them aimed at debugging and the like. Offers little more than the *Utopia* toolkit, and has none of the disk utilities.

Maxam
(Arnor) £39.95
A strong but very conventional assembler/monitor with built-in editor. Can also assemble source code embedded in BASIC, like the BBC Micro.

Assembler/Disassembler/Monitor
(Superpower) £29.95
Similar to *Maxam*, but quirky and poorly error-trapped – but it is £10 cheaper. Comes on two ROMs.

If you can't alter the ROM, what can you do with it? The answer is, you can run the program stored in it. 'Stored' here means fixed in the ROM by the manufacturers – this fixing is a once-and-for-all job, often referred to as 'burning in'.

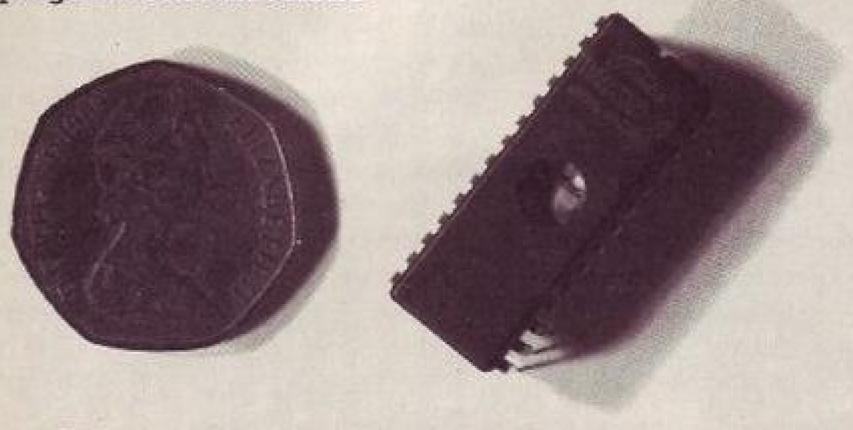
USING ROMS

That's enough for now on the theory of ROMs – the next thing to cover is what you do with one to get it working.

When you switch your Arnold on you've already got two ROMs working for you, or three if you've got a disc drive. These ROMs carry programs to make Arnold behave usefully – put messages on the screen, obey BASIC commands, operate the disc drive and so on. Chances are you didn't even realise that these things were programs. After all, you don't have to load them in or anything; they're just there when you switch on. That's nothing to do with the sort of programs they are though – it's because they're stored in ROMs.

To look at, a ROM is just a flat brown rectangle with a row of little metal legs down each side. It's small – the picture shows it actual size – and quite fragile. If you touch the legs you risk damaging the ROM's little silicon innards with everyday static electricity from your fingers – or more prosaically, you could simply bend the legs out of shape by being clumsy.

Clearly, your ROMs are going to need to be housed somewhere safe. The ones that come built in to your Arnold are plugged into special ROM sockets on Arnold's circuit board. If you wanted, you could simply open Arnold up and swap some other ROM for the one that handles Locomotive BASIC. That way – once everything was safely put back together – you could simply plug in, switch on and you'd be looking at the ROM program rather than BASIC.



I'm not suggesting that you actually do this – in fact, there are some very good reasons why you shouldn't. For starters it'll void your guarantee. Secondly, you may well want to use BASIC again some time, and that would mean having to swap the ROMs back. In practice, a ROM will only stand so much plugging and unplugging before its legs snap. In other words, you're going to have to find somewhere permanent for any new ROMs to live, and for the sake of your guarantee it had better be outside Arnold's case.

ROM BOARDS

What we're after is a box which is strong enough to protect your ROMs, has sockets for a fair few of them, and connects up with Arnold nicely. Such a box is called a *Sideways ROM Board.* The 'sideways' bit just means Arnold can switch between the different onboard and additional ROMs without you having to plug and unplug them the whole time.

In theory, you could connect Arnold to a very large number of ROMs at any one time – over 250 of them, in fact – but there are practical limitations to this. The largest boards only takes eight ROMs at a time, and you can only 'daisy-chain' so many separate boards together before you start getting power problems.

As well as plugging the ROM in the right way round, without breaking it, there are a couple of other things you need to get right when you're setting things up.

Firstly, you have to choose which socket to put the ROM in – and that's not quite as easy as it sounds. Putting the ROM in the wrong socket can stop Arnold from getting at it, or even stop other ROMs from working properly. This can be pretty technical stuff, and ROM board manuals rarely explain things properly. Hopefully, the ROM Numbers section later will make this a bit clearer.

ROM Applications

Arnor's WP suite and Superpower's *Mailing List* both benefit from having all that RAM for data storage. If the alternative is an expensive CP/M application, you might find the price pretty attractive too.

Protext
(Arnor) £39.95
For many people, this is enough reason in itself to buy a ROM board. It's a quality product and very fast too.

Promerge+
(Arnor) £34.95
This *Protext* add-on offers mail merge, background printing and quite a few other goodies.

Prospell
(Arnor) £34.95
Despite it's name, this spelling checker can be used with a wide variety of popular WPs. Comes complete with dictionary disk.

Mailing List
(Superpower) £19.95
A specialised database program that works well and fast. Not exciting, maybe, but very useful.

Having chosen your socket and plugged the ROM in, you'll then have to switch the socket on. On some boards this is a matter of flicking a switch, while on others you have to bridge across two pins using a little plastic-coated connector. The rule on this one is really simple – you must always turn a socket on if you put a ROM in it, and turn it off if you take the ROM out again.

SUPERPOWER BOARD

MicroPower, £34.95

The old Superpower board was designed for the 464, and could only use ROM numbers in the range 0-7. This was clearly unsatisfactory for use with the 664 and 6128, so they have now produced this selectable board for the whole range of machines. It has eight sockets, as opposed to seven on their original board, and you can now switch the board between numbers 0-7 and 8-15. Solder freaks can easily modify this to give ROM numbers up to 63, though this is unlikely to prove very useful.

The board clings to the expansion port, and having no other support it does tend to wobble a bit. It is a bit on the heavy side for this kind of connection, and the weight is quite high up. Bearing all this in mind, the connection is surprisingly reliable, but you'll still get a fair number of failed power-ups and similar annoyances.

Access to the ROM sockets is made very easy indeed – the back half of the board simply pulls off. The sockets are switched on by the use of plastic-coated linking pieces. While this makes for considerable flexibility in the use of the board, it does mean you've got to look after those links if you switch sockets off at any stage. Another problem with removing ROMs is simply the position of the board within the case – it's just too deep to be able to get at easily. You'll end up levering against the case and damaging it, or having to use a ROM removing tool.

GOOD NEWS	BAD NEWS
▶ **Lots of sockets.** ▶ **Offers you some high ROM numbers.** ▶ **Good documentation.** ▶ **Easy access to ROMs.**	▶ Heavy, and prone to wobbling. ▶ Switching and removing ROMs can be fiddly.

The documentation that comes with the board is good, setting out essential information clearly and telling you pretty much all you need to know. Overall the new board is good but not cheap.It would have been better as a free-standing unit, but it is the only board around to offer you a crack at those high ROM numbers. If you've got a 464, however, you'd do well to look at the old seven-socket board. It offers you as much as you could use of the larger board's power, it's cheaper and it doesn't wobble half so much.

KDS BOARD

KDS Electronics, £26

The KDS is a free-standing board, relying on your table for support rather than Arnold's expansion bus – or that's the theory. Unfortunately, the cable connecting the board to your Arnold is very short; so short, in fact, that it can't reach the 464's port with the case resting squarely on the table. If you don't want the board to dangle from the expansion bus, you'll need to prop it up with a book or the like.

The reason for this short cable has to do with the 464 disk drive. If you want to use the DDI-1 with a ROM board, or any other expansion port peripheral, you'll have to plug its interface into the peripheral's through-connector. Since the KDS board's through-connector is on the board itself, this means that the DDI-1 has to communicate with your 464 down the length of the board's connector cable. Now, the DDI-1 doesn't like having to use long bits of cable – so the ROM board cable had to be

▶

kept short or you wouldn't be able to use the DDI-1 with it. Got all that?

The small, chunky case houses a meagre five sockets. To get at them you have to turn the case upside down, unscrew the base plate – no easy matter on the review copy – and flip the entire board out into your hand. This is awkward enough when the board's empty, but with ROMs in the end sockets you'll find you have real problems.

GOOD NEWS	BAD NEWS
▶ **Convenient DIP-switches for turning sockets on or off.**	▶ **Only offers five sockets, and their ROM no.s are fixed.** ▶ **Difficult to get at the sockets to insert/remove ROMs.** ▶ **Inconveniently short connector cable.** ▶ **Poor documentation.**

The sockets are switched on and off by a set of DIP switches, but the single page of documentation gives no clue about the ROM numbers of the sockets. As it turns out, they simply provide ROM numbers 1-5. This makes the board rather less useful than the old seven-socket *Superpower* board, and £1 more expensive.

ROMBO

£29.95 + £1 P&P
from M.Sharp, 62 Meadowbank,
Ladywell, Livingston,
W.Lothian EH54 6EL

This great little board comes in a rugged free-standing case, connected to Arnold's expansion port with a good length of ribbon cable. There's a through-connector on the case to hang peripherals on, and another on the expansion connector itself for anything that can't cope with long cables – neatly overcoming the 464 disk interface problem somewhat better than the KDS board.

You can switch the eight ROM sockets between numbers 0-7 and 8-15 by moving a *Superpower*-style link, but for turningindividual sockets on and off *Rombo* has eight tiny DIP switches. The lid-fastening screws undo easily, and there's no problem getting at the sockets to remove ROMs.

The documentation is on the light side, but does tell you everything you need to know about the board itself. It only falls short on general information about ROMs – a common enough fault to be sure.

There isn't too much else to say about the board, really. It's well made, and looks like it could stand its share of rough handling. The expansion port connection never caused a moment's difficulty, and the board was generally a pleasure to use – I'll be sorry to have to send the review copy back, to be quite honest.

GOOD NEWS	BAD NEWS
▶ **Eight sockets, turned on/off by DIP-switches.** ▶ **ROM numbers up to 15 available.** ▶ **Easy to insert and remove ROMs.** ▶ **Makes a reliable connection with the expansion port.** ▶ **Costs £5 less than the Superpower board.**	▶ **No ROM numbers above 15 – but then who needs them?** ▶ **464 owners might still be better off saving £5 and getting the old Superpower board.**

PLUG IN AND GO

ROM NUMBERS

Theoretically, Arnold can cope with up to 252 different ROMs. For his own purposes he uses numbers to tell them apart. These *ROM Numbers* run from 0 to 251, but for practical purposes we're going to be interested in the first 8 (ie numbers 0-7) on a 464, or the first 16 (numbers 0-15) on a 664 or 6128.

In both cases, you've got to watch out for different ROMs having the same number. If two ROMs 'clash' like this, Arnold can't get at either of them. You'd have to be pretty careless to fit two ROMs in such a way that they clashed with each other; the danger is that one of your ROMs is going to clash with an onboard or peripheral ROM. If you've got a disk drive, for example, you can't give a new ROM the number 7 – because that's already taken by the disk ROM.

Other examples are given in the diagram. The crowded region is from 0 to 7, but what you do about this depends on which machine you've got.

664 and 6128

We'll get the easy bit out of the way first. You can, almost without exception, give any ROM you like any spare number in the range 0 to 15. You can leave gaps in the numbering without the slightest problem, so it's best to forget about the crowded 0-7 area altogether. You will need a board that can give you those higher ROM numbers though.

Things get much more complicated from number 16 upwards, so it's best to stay below this. You're very unlikely to need this many ROMs, but if you do you'll need a good manual to help you.

464 owners

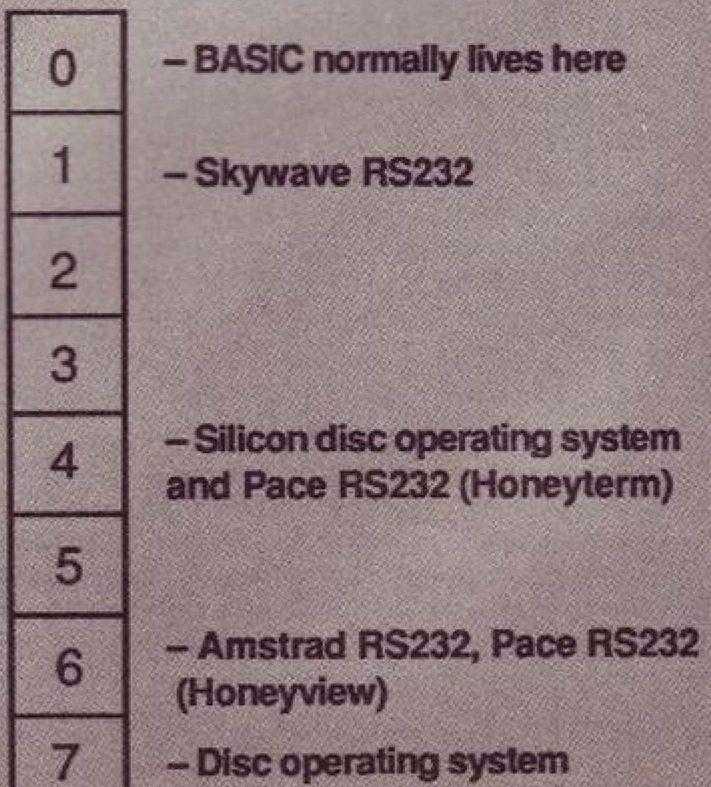
Things are a bit harder wit 464s, but you shouldn't have an problems if you follow thes guidelines.

ROMs come in two mai kinds, *foreground* and *back ground*. If the documentatio with the ROM doesn't give yo specific fitting instructions, will normally tell you which o these two kinds the ROM i Don't worry about the differ ence between the two; all yo need to know is how to fit them.

Background ROMs ar simple – they can go anywher in the range 0-7, provided the don't clash with anything els This narrows your options dow a bit if you've got a disc driv RS232 and all sorts of othe things fitted.

Foreground ROMs are a b more complex. They can g anywhere in the full 0-25 range, provided there are n unused ROM numbers lowe down. For example, you cou give a foreground ROM th number 57 and Arnold wou be able to run any program stored in it – provided the were ROMs for all of numbers 56. Unplug any ROM in th range, number 31 for exampl and ROM 57 will become 'invi ible' to Arnold; he won't kno it's there, and you won't be ab to use it.

Some ROM manuals do tell you what kind of RO you're dealing with, or give yo fitting instructions. The two o tions are to experiment with th ROM – which probably mea plugging and unplugging it couple of times – or to pho the manufacturers. The lat not only saves wear and effo but also gives you the chance complain in no uncertain ter about the documentation!


0
– BASIC normally lives here
1
– Skywave RS232
2
3
4
– Silicon disc operating system and Pace RS232 (Honeyterm)
5
6
– Amstrad RS232, Pace RS232 (Honeyview)
7
– Disc operating system

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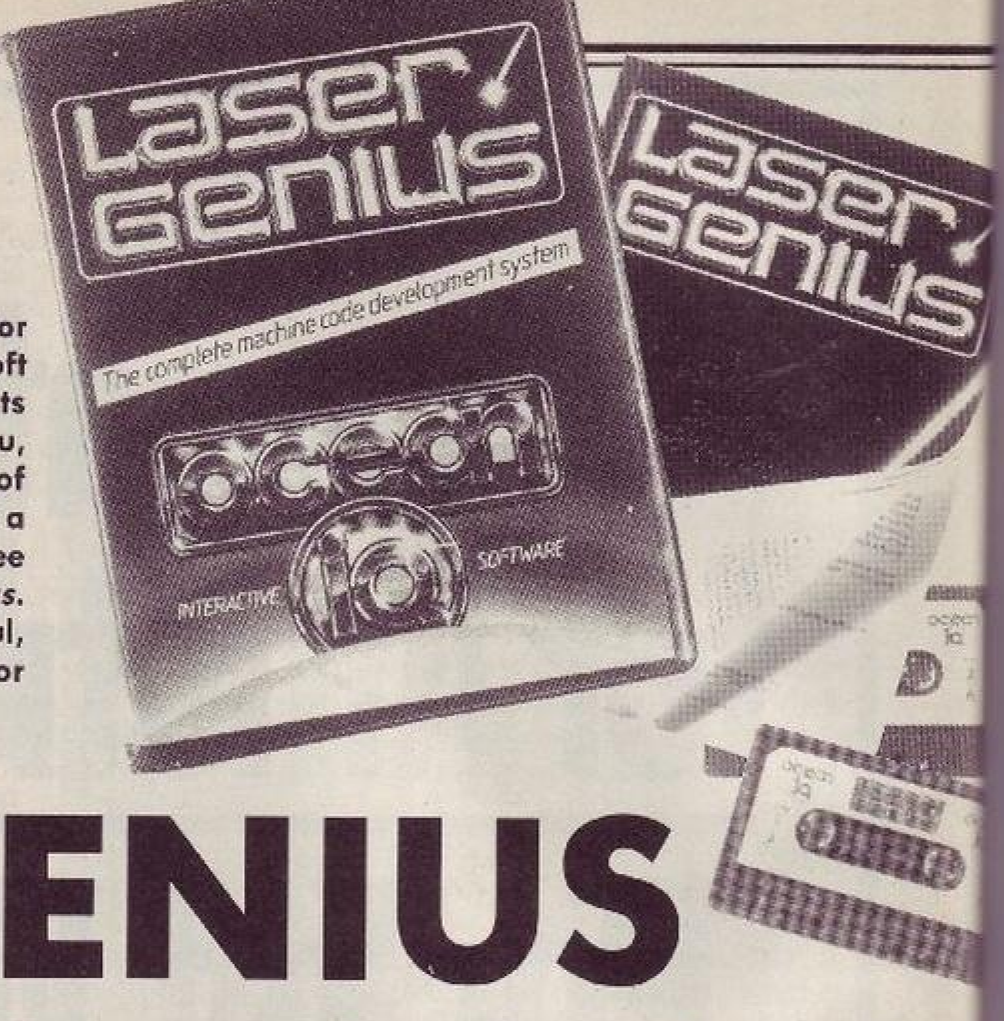
Pocket WORDSTAR
Pocket WORDSTAR

Specifications
CPU Memory: 56K of RAM is required
Pocket WordStar can operate with one disk drive containing at least 120K

MicroPro.

MicroPro International Ltd,
Haygarth House,
28-31 High Street,
Wimbledon Village,
London SW19 5BY
Telephone: 01-879 1122

LASER GENIUS
Oasis/Ocean IQ, CPC machines only
£14.95 tape, £19.95 disk



If you thought there were plenty of assembler/monitor packages for the Amstrad, you'd have a point. Hisoft and Picturesque, Discovery and Hewson Consultants all have their offerings at a computer store near you, and between them they offer a fair selection of different styles. If you thought there was no need for a new package, on the other hand, I'd have to disagree with you – but then, I've got a copy of *Laser Genius*. This Oasis/Ocean IQ offering is incredibly powerful, and the market is just going to have to make room for it.

PURE GENIUS

Andrew Wilton is knocked out cold by a new package for machine code programmers.

THE EDITOR

The assembler has a built-in source code editor, and this will probably be your first contact with the system as a whole. It'll also be your first taste of Genius's individual style. It's a mixture of line and screen editor, which Oasis claim offers the best of each system. At first it seems distinctly odd, but you soon start to see what they mean.

It's not easy to describe how the editor works, because it's so unusual. You can use it just like BASIC, giving each source code statement a line number and LISTing the program every so often. You'd hardly know the editor had another side, until you type in a piece of nonsense. Immediately, the editor marks the error with a large and descriptive message – even if it was a program line that you typed incorrectly. What's more, you can then move the cursor back up to the incorrect line, correct it and the error message disappears again.

More powerfully, the editor stores everything that scrolls off the top of the screen. By moving the cursor upwards you can bring this text back on screen, running up through previous listings, deleted lines and the like. All this text can be used – move the cursor on to a command, edit it if necessary, hit RETURN and the command's obeyed as if you'd just typed it in. What's more, the text scrolls extremely fast, beating *Protext* by some way and knocking spots off most editors/WPs.

The purists among you might object to the use of line numbers which *Genius* demands, but there is a lot of flexibility here. Numbers are necessary, but not for every line. You can group lines together in paragraphs or pages all with just the one number. Rather than getting in the way, the numbers help you organise your programs – and they make light work of block deletion, of course.

ASSEMBLER AND PHOENIX

Assembly can be to and from disk, tape or memory, and in the latter case is very fast indeed. The speed comes chiefly from the way that the editor checks program lines for syntax errors as you type them in. This allows it to *tokenise* the source code – that is, to compress it into a much smaller space than it would normally require – and tokenisation makes for very fast assembly.

The assembler can handle all the Zilog-recognised mnemonics, and none of the unofficial ones. This is quite deliberate, and very encouraging. Some assembler authors allow for unofficial mnemonics, because they provide an extra selling point in adverts. In practice, unofficial mnemonics are utterly worthless and should be avoided at all costs. Because Oasis originally intended *Genius* as a tool for their own use, they stuck to what was actually useful.

As well as macros and conditional assembly, both well handled, *Genius* supports a high-level language called PHOENIX. This is of immense value if you want to test out aspects of your program, or even write the finished article with it. It compiles to stand-alone Z80 code, and runs at a healthy pace. It is, however, fairly tough to use – rather reminiscent of *C*, and not at all a language for the faint-hearted.

There is a great deal more to deal with, including selective assembly of library routines and a comprehensive set of assembler directives, but space is short. Instead we'll turn our attention to the Genius monitor, which is perhaps the more important side of the package.

THE MONITOR

I've never been a great one for monitors myself. The conventional monitor is a very clumsy tool when it comes even to fairly simple bugs. On those subtle, elusive bugs that crop up all too often, they are almost completely useless. On any sizable piece of code, single-stepping through the whole program can take hours or even days.

Often, you know to some extent where the problem lies. You might know, for instance, that the bug lies in one frequently-called routine or that it corrupts a particular area of memory. With a normal monitor, this knowledge does not help you a great deal. It's comforting to know that professional programmers have these problems too, but it's better still that Oasis did something about it. To be precise, they wrote a brand new kind of monitor.

For a start, the monitor can do everything a normal monitor can do. It can dump memory, it can disassemble to screen, printer and tape/disk, and it can single step in the normal way. It can, indeed, single step through ROM routines. It can also slow-run through RAM and ROM, with a good range of options covering the way in which it handles subroutines and updates the screen.

As for breakpoints, you can choose from 17 different types. These cover continuing in different slow-running modes, use of down-counters and also switching back to normal, full-speed running. This means that you can isolate a particular sub-routine to be run slowly, stopping after a set number of calls if you wish.

All very useful stuff, you might think, but nothing amazing. If you want something amazing, you'll need to use the monitor's built-in Analyser. This provides you with ten stop conditions which are fully programmable – by which I mean, you get a dialect of Forth to program them in.

THE ANALYSER

The idea is quite simple. Every time the monitor performs an instruction under slow running, it tests each stop condition to see if the bug has occurred. If the bug corrupts the screen, you simply set up one condition to check for anything which writes to the screen. If parts of the program are meant to write to the screen during normal running, you can exempt them in the condition. Alternatively, you can work out some test which distinguishes between normal and abnormal screen write operations.

The key idea is the use of a built-in programming language to define the conditions with. The choice of Forth as that language was determined by space considerations – Forth is about as small as a language can be – but it also benefits from being easy to describe and learn. If you're ready for assembler, you should have no problems with the Analyser. If you're already familiar with Forth you'll find the Genius dialect small and non-standard, but well suited to the job.

You really can check for just about everything you want with the Analyser. Oasis include, as an example, a stack-checker to stop your program if you try to RETurn with the stack unbalanced. This in itself would justify buying Genius for most people, but it hardly scratches the surface of what's possible.

You can set up a safety condition to prevent corruption of the monitor or your own program, to make the whole system crash-proof. You can check for contents of registers, of the stack, of memory pointed to. Analyser definitions can check for write and read operations in general, without specifying registers concerned. In short, you can do whatever you need to do to find that bug, quickly.

DOCUMENTATION

Assembler manuals are usually a bit on the weak side, and inevitably get very technical. The Genius manual is 150 pages long, with a thorough and friendly approach that is considerably above average for the field. It comes across, however, as the weakest part of the package. There is nothing startlingly new you can do with a manual, so it was bound to suffer in comparison with the rest of the system.

That said, the manual is very terse. The information on Phoenix, for example, is only barely adequate. This is not surprising – after all, 150 pages really isn't enough for such a complex and original system. However, the mainstream sections of the system are very well covered. If you want to explore, you'll probably just need to experiment a bit.

The only other criticism of the manual is its colour – black text on blue paper. This prevents photocopying the manual, but it does mean you'll need a reasonable light to read it by.

GOOD NEWS	BAD NEWS
▶ Stunning monitor. ▶ Fast, powerful assembler. ▶ Strong, flexible editing of source code. ▶ A high-level compiled language that you can mix with assembler mnemonics. ▶ A great price.	▶ The manual could be a bit stronger. ▶ If you've just bought a different assembler, you'll have to start saving all over again!

THE VERDICT

This package is so much better than the competition it's hard to know where to start. If you never used the extra features, you'd have a good, solid, easy-to-use system at a very reasonable price. You would, however, be missing undreamt-of debugging power, and a high-level language thrown in for free.

If you've already got an assembler, throw it away and buy *Laser Genius* instead. If you've been waiting for the definitive assembler packaged with a truly useful monitor and a price tag under £20, this is it. Buy it.

SO WHAT'S A MONITOR?

The problem with programming in machine code, even with an assembler, is that it's very difficult stuff to debug. If a BASIC program is faulty it will stop and give you an error message. A bug in a machine code program, however, will normally either lock you out of the computer or crash it completely. In either case, it can be very difficult to work out what you did wrong, since you'll have to reset or switch off to regain control.

To help you sort this kind of thing out, you'll probably find a *monitor* comes in handy. This is a program that helps you look at pieces of machine code and run them one instruction at a time. A good monitor will usuallly include a *disassembler*, which can turn opcodes back into mnemonics. This is essential for hacking into other people's programs, and very useful for unscrambling your own.

WHAT IS AN ASSEMBLER?

If you do much programming in BASIC, you'll know it's not the ideal language for some purposes. If you're writing an arcade game or a word processor, for example, BASIC just isn't fast enough to give you a worthwhile program.

The problem is, Arnold's computing power is provided by his Z80 chip – and the Z80 just doesn't understand BASIC. The only language it understands is Z80 machine code – and that's just a load of numbers as far as most human beings are concerned.

If you write a program in BASIC, Arnold has to translate the program instructions as he comes to them. This translation usually takes Arnold quite a bit longer than actually doing what the commands tell him. If you write programs in machine code – the Z80's own language, remember – there's no need for all this inefficient translation. Arnold knows what machine code means, so he can get on with obeying it as it is.

Machine code may make things easy for Arnold, but it makes things almost impossible for you. Being made up solely of numbers, machine code instructions are extremely difficult to remember. If you want to return from a subroutine, for example, the BASIC command is "RETURN". The machine code equivalent of this is the rather less memorable "&C9". To remember several hundred of these numbers – or *opcodes* as they are properly known – is obviously no easy matter.

The solution is to use an *assembler*. This allows you to write your program not as opcodes but rather as *mnemonics* – easy-to-remember abbreviations which remind you of what the instructions actually do. Thus instead of "&C9" you type "RET", because "&C9" tells the Z80 to RETurn from a subroutine. Similarly you type "LDIR" for LoaD, Increment and Repeat – which is rather easier to remember than "&EDB0", the equivalent opcode.

Once you've written your program in mnemonic form – this is called the *source* code – the assembler translates the mnemonics into opcodes. This produces a machine code program which the Z80 can understand, without your having to learn a whole load of those incomprehensible opcodes. The finished opcode program is called the *object* code, and the process of turning source code into object code is called *assembly* – which explains why an assembler is so called. ☐

CON

Master of the Database, Andy Wilton, takes a look at this competitor to dB

Caxton first made a name for themselves in Amstrad circles with *Cardbox*, an extremely simple database. You could call this latest release of theirs a database – but that's where the similarity with *Cardbox* ends. *Condor 1* is so complex and so powerful that 'database' is a misleading term for it.

The ads call it a 'database management and reporting system', and this isn't just a flowery way of saying 'database'. *Condor* doesn't just organise your data for you – it helpsyou create systems to organise your data with. If that doesn't mean much to you, just bear with me.

GETTING STARTED

As is now commonplace with PCW applications, the *Condor* master disk carries a SUBMIT file to transfer essential program files to the M: drive. Unfortunately, on an unexpanded 8256 there is simply not enough room for all the necessary files, so three overlays – around 16K, all told – have to go on your data disk. This means you've got the chore of transferring the overlays onto every disk you want to use for data. Fortunately, the master disc carries two SUBMIT files which do this job for you.

Things still aren't any too easy even once you've done this. *Condor* is so large you can't fit CP/M and a full set of program files into 180K, so you can't make yourself a turnkey disk. This isn't a problem as such, but it is a bit annoying.

THE SYSTEM

Once you've booted CP/M and used CONDOR.SUB to set things in motion, you're presented with a copyright screen and a prompt for today's date. You don't have to enter a date – just hit return to move on – but it'll prove very useful for some applications.

If you were expecting a command menu to appear at this point, you're in for a disappointment. All you get is a system prompt – 'A>>' rather than CP/M's 'A>'.

The first command you'll want to use is DEFINE. This sets up a *dataset* – a group of records – and allows you to define it's record card. As your first contact with *Condor*'s editing controls, this card-definition doesn't bode well. For a start, the cursor keys aren't configured for obvious up-down-left-right controls. This isn't too surprising; what really annoys is the way the alt-key combinations are non-Wordstar. Indeed, the movement keys don't form a diamond or any other natural pattern. If you like SETKEYS, you'll love *Condor*.

The lack of keyboard configuration isn't particularly surprising, and there's an on-screen help line for some of the more important keys. What is rather stranger is the way *Condor* only uses a 24x80 screen. Keys can be redefined, but the small screen looks to be something you're stuck with.

Once you've set up the dataset's card format, you'll be prompted for the types of the different fields. There's a good range of these types, including Julian (calendar date) and Money. The former, being day-month-year in format, will please the anti-Americans among you: the latter, being selected using the '$' key, will not.

USING THE DATASET

Having defined your dataset, you're going to want ot put some data into it. To get onto the data entry screen you use the ENTER <dataset name> command from the 'A>>' prompt. The record card appears on the screen, and you simply type your data into the relevant fields. Of course 'simply' here is only relative – you've still got those miserable editing keys to contend with.

Up to this point, as you may have gathered, *Condor* is fairly unfriendly. Putting it at its worst the program is cumbersome to set up, it's command-line- rather than menu-driven, it fails to use the full PCW screen and its editing controls are completely arbitrary. Anyone dismissing the package now, however, would miss out on an awful lot.

When it comes to using the data you've typed in, *Condor*'s pretty impressive. Suppose you want to see a list of customers on a subsription list dataset called SUBS, for example.From the 'A>>' prompt just type in *LIST SUBS BY SURNAME INITIALS START.DATE FINISH.DATE*, where SURNAME etc are the names of the fields you want on the list. Up comes the list in neat columns, one for each field, complete with column headings. For a hard copy equivalent of this, there's a PRINT command which works in exactly the same way.

Nothing too impressive in that, you might think; nice, natural syntax certainly, but hardly an earth-shattering command. The natural command syntax carries over into other commands, however. Typing in *SORT SUBS BY SURNAME INITIALS START.DATE FINISH.DATE* takes a little thinking time on the computer's part, but works fine. If you LIST the SUBS dataset again, you'll see that it's now been sorted into alphabetical/numeric/date order by each of these fields, in order of precedence. In other words, 'Jones' comes before 'Smith', 'J.A.Jones' before 'J.B.Jones' and so on right down to the order of the finishing dates on two otherwise identical entries. If you'd told it to, *Condor* could have sorted by a further 28 fields.

If you think about it, you'll now see one of the reasons behind the use of a command line to enter instructions. A menu might be quicker on single instructions, but it would lose out by some way on a command like SORT – and we haven't got onto the complex commands yet.

SEARCH COMMANDS

If you want to alter a given record, you can easily do so with the UPDATE command. Suppose you discover, after typing in a large number of addresses, that Bristol is in Avon rather than Somerset. Type *UPDATE SUBS WHERE CITY IS BRISTOL*, and the program offers you all the records with Bristol addresses. You can leat through them, modify them to your taste or print them all out.

If you want to do rather more with your chosen records than UPDATE allows you to, you can use the SELECT command. Continuing the previous example, you can type *SELECT SUBS WHERE CITY IS BRISTOL*. This creates a temporary dataset called RESULT, which consists of all records with Bristol addresses. You can LIST, PRINT or UPDATE this RESULT dataset – and generally treat it like any other dataset – but this is not necessarily a good idea.

You see, RESULT is only temporary. Its current contents will be lost the next time you use SELECT or certain other commands. This isn't always undesirable. You can, for instance, use *SELECT RESULT WHERE...* to narrow the selection down still further. If you're going to want the RESULT contents in the long term, however, it's best to put them somewhere safe. To

DOR

ll from Caxton Software

do this, you use the SAVE command. *SAVE BRISTOL*, for example, would put the contents of RESULT into a new dataset called BRISTOL.

GETTING MORE ADVANCED

So far the commands have all been very natural and logical, but then they've not been doing anything very complex. From now on, things get rather more complex. This is the direct result of *Condor*'s power and flexibility. The fact it makes sense at all is a tribute to the manual, and the natural syntax of the system itself.

The ideal system for handling data involves keeping one master dataset containing all the information used, and various satellite datasets to update and modify it. The key idea is one of safety; alterations and additions are never made to the master dataset directly, so there is far less risk of wiping out vital data. Instead, you feed all new items of data – and revisions to existing items – into the satellite datasets. At the end of the day, these changes can be transferred to the master dataset.

There are other advantages to this system than just safety. For one thing, the satellite datasets can be specialised, cut-down versions of the full-size master.

A payments dataset, for instance, need only carry the amount paid and enough other fields to identify the customer concerned. The other customer details on the master dataset card – even the money owed by the customer prior to the payment – are irrelevant for these purposes. Powerful, flexible commands can transfer the data across and compute new figures for the amounts now owed etc.

This cut-down card technique makes it immediately clear exactly what you're supposed to do. If you're presented with the master card and all the customer's details on it, you'll have a job finding the right field let alone working out what form the data's meant to take. The payments card, however, will be much less cluttered and can carry explanatory notes.

AUTOMATION

A division is starting to emerge in the use of *Condor*. On the one hand, you have the more experienced user who sets up the different datasets and their respective cards; and on the other, you have the operator who simply fills out the relevant cards as part of the office procedure. The problem comes at the end of the day, when the relevant transfer and computation commands need to be entered.

The transfer commands are not easy things to use. The choice of command words and the syntax they use are very helpful, but the underlying concepts are not always easy to grasp or explain. While I could give examples, I don't have anything like the space I'd need to explain them. The manual is essential here, and it is an enormous piece of work. Since only the more interested user is going to wade through all of it, there has to be some way of simplifying the transferral task for casual operators.

There is such a way, and it is called the *command procedure file*. This is a set of instructions for *Condor* to follow. It can contain conditions, use variables, display messages and take input from the keyboard – it is, in other words, a program.

Any series of instructions you could type in at the 'A>>' prompt can be built into a command procedure. Thus, a complex sequence that transfers payments in and recalculates money owed can become *RUN PAYMENTS* – as far as the operator's concerned, at any rate. Of course, someone's got to write the command procedure. This isn't actually a very difficult task. It's a lot like producing a simple BASIC programme, and you only have to write the thing once.

You can carry the automation even further, if you like. By using the FORMAT command, you can create help menus. In use, the relevant menu option is selected by entering the option's number; there is no need to use the command line in the conventional way. Menu options can lead to command procedures or to other menus – it's up to you. In this way you can create a whole menu-driven system which completely insulates the operator from *Condor*'s complexities.

CONDOR 1

Caxton Software

£99.95, PCW machines only

DOCUMENTATION

The review documentation was pre-production, but even with important diagrams missing it explained most features extremely clearly. It is not, however, light reading. The finished version is, I'm assured, even larger – so get your bookshelf strengthened now.

CONCLUSION

The above account necessarily omits several features. There's *Condor*'s ability to swap files with word processors for one thing, and it's report-generating capabilities for another. What it has demonstrated, I hope, is this: *Condor 1* is an extremely powerful package which goes far beyond what an average PCW database can do for you, but it's going to take some effort for you to get the most out of it.

GOOD NEWS	BAD NEWS
► **Very powerful indeed.**	► **Record entry is awkward, and control keys are arbitrary.**
► **User-friendly command system.**	► **Only uses 24x80 screen.**
► **Can tailor a database system to your exact needs.**	► **Needs work to get at all that power.**
► **Very reasonable price, for what you get.**	
► **A huge manual, and Caxton's support hotline.**	
► **Exchanges files freely with other applications.**	

Even with the cut-price edition of *dBase II* on it's way, *Condor 1* is easily the cheapest way of getting this kind of power. If you've got the size of data-handling job that needs heavy-duty software, it's excellent value for money. ☐

MAKING

Budding Beethovens need look no further – Andy Wilton looks at two

Music Box

The Electric Studio
All CPCs, £9.95 cass £16.95 disk

Electric Studio are well known for their lightpens and graphics programs, but this music package is something of a new direction for them. However, what with the liberal use of icons and the inclusion of a lightpen control option, there's still a familiar feel to things.

The package is in fact two separate programs, *Music Composer* and *Synthesiser*. The former is a music editor – the musical equivalent of a word processor – while the latter is an envelope designing utility.

MUSIC COMPOSER

The editing screen is dominated by two staves, one above the other. The lower one is the editing stave. It has an arrow-head cursor, pointing to the place your first note is going to go. The cursor keys move this up or down, allowing you to place the note anywhere in a four octave range.

Note values – crotchet, minim etc. – are chosen from a block of icons to the left of the editing stave. Each of these icons is selected by a different key on Arnold's numeric/function keypad. Thankfully the icon arrangement mimics the keypad so that the top left hand icon, for example, is selected by f7 – the top left hand function key. Because of this, you can tell at a glance which key you have to press.

This works very nicely on the 464 and 664, but there's a slight problem if you've got a 6128 – because, of course, you've got a different shape of function pad. This does spoil the neatness of the icon block idea, but it's still easy to remember which key to press. The only keys that have moved are the decimal point and <enter>: the decimal point corresponds to the dotted note icon, and <enter> places the chosen note on the stave, so they're both quite natural keys for their respective jobs anyway.

As well as note lengths, the block carries icons for accidentals – sharps, flats and naturals occurring in the flow of the music – and a toggle to switch between notes and rests. This latter is a nice piece of work, changing all the note-value icons into rest signs of equivalent lengths.

Other keys give you access to slurs, ties and triplets. The pound-sign key calls up a menu of repeat signs; allowing for a different ending on the second pass through a passage and – less useful – for infinite repetition.

BAR LINES

As you add notes to the editing stave, bar lines are automatically inserted after the correct number of beats. It's up to you, though, to make sure that this is possible – if there's only room for a crotchet at the end of the bar and you select a minim,

Minstrel

Kuma Computers
All CPCs, £14.95 cass £19.95 disk

Like the *Music Composer* half of *Music Box*, this program is a music editor. The two programs have rather more than this in common, but for now let's deal with the differences between them.

There are no icons on the *Minstrel* screen. Instead there are a series of single-line windows underneath the large editing stave. These control the editing and playback of the music file, with the emphasis on playback. To select a function – note value, say – the function cursor has to be moved under the window. To do this, you have to use the numeric/function keypad as a set of cursor keys, f6 for right and f4 for left.

Once the function cursor is directly under the window, the contents of the window can be altered using f8 to increase and f2 to decrease them. In some places this is natural and straightforward; f8 lengthens the note value, or speeds up the tempo. On other windows, however, it's quite meaningless; if you're selecting file handling and similar commands, you simply have to leaf through one way and then the other until you find the command you want. A menu would have been a lot simpler to use than this silly gimmickry.

Writing and editing a piece of music on *Minstrel* is none too easy, but you can see and edit all three parts of a harmony on the one stave. This does create serious problems in timing, however. Suppose you enter four crotchets in a row for one voice, and four quavers in a row in another. They each take up the same length of stave, but what happens when you play the tune?

The answer, as I found to my cost, is that both lines take the same length of time. Minstrel plays the passage as if you'd typed in four quavers alternating with quaver rests for the second voice's part. If you want the quavers to play through in half the time, as you might at first have expected them to do, you have to space out the crotchets to take up twice the length of stave.

Of course, if you type in a line of minims close together, and then realise you need to fit a line of quavers in over the top, you'll have an awful lot of spacing out to do. Moral: write the tune down first on a piece of manuscript paper – *Minstrel* is not a suitable tool for composition.

GOOD NEWS	BAD NEWS
▶ Can edit all three parts on the same stave. ▶ Allows expressions and key-changes in the music. ▶ Independent volume controls for the three channels.	▶ Very slow when editing music. ▶ Awkward command selection. ▶ Can be very laborious synchronising parts. ▶ Weak error-trapping on disk operations. ▶ Offers very poor value compared to The Music System.

EDITING

The biggest single problem with *Minstrel* is the speed it runs at.

Andy gets off on...

If you're leafing through the score you have written so far, 'turning the page' from one stave to the next can easily take five seconds. This is not because the program's doing anything clever, you understand – it's just that *Minstrel* is written in Basic, and it takes that long to put all the notes up, one at a time. To be fair, *Music Box* is also a Basic program; the difference is that on *Minstrel* it shows.

There are similar redrawing delays if you insert or delete notes on a fairly full stave. Problems with Basic don't end with sluggishness, either; the disk commands seem to have no error-trapping at all, so you can expect to lose your pieces of music every time you try saving to a full disk, for example. I would advise you to make regular backups, but under the circumstances I don't think that would be too helpful.

FACING THE MUSIC

After all that, I have to admit that *Minstrel* has some very nice features. You can insert crescendo and accelerando instructions so as to give your piece expression; you can set the volumes of the different voices independently of each other; and you can fine-tune the tempo. Another nice touch is the way you can change key in the middle of a piece – a very useful little feature.

There's no getting away from it though; the overall structure of the program is just too weak for nice features to redeem it. In a straight fight, *Music Box* would win my vote before price was even mentioned. As it is, *Minstrel*'s price pits it against Rainbird's *Music System* – and it really isn't in the same league.

MUSIC:

packages designed to change your Arnold into a music machine

Music Box will stop inserting bar lines until you fix the error.

When the editing stave is full, it clears to a blank stave again to make room for the next part of your composition. The old contents aren't removed from the screen, though: they are simply moved to the previously blank upper stave. As you fill up the editing stave over and over again, the upper stave always displays the last few bars written.

For editing purposes, you can flip backwards or forwards through the staves using the cursor keys. Notes can be deleted, duplicated or overwritten. There is no insertion facility, but duplicating a note and overwriting the copy serves the same purpose. It's a bit clumsy, as indeed is the whole system of stave-switching. The upper stave helps overcome the obvious 'where did I get to?' problem, but it's no substitute for a proper scrolling stave.

Moving around within a piece of music can be a pretty slow affair, but fortunately there's a command which allows you to jump straight to a given bar. To be truthful, this was about the only use I could find for bar lines – the program seems to play all the notes of a bar with equal emphasis. As for accidentals, they have no effect on other notes in the same bar anyway.

As well as jumping between bars you can switch between three voices – Arnold's three sound channels. This enables you to give each voice a different part of the overall harmony. Unfortunately you can't write the three different parts on the same stave, or even view one part while writing another – it can take a considerable amount of forward planning and mental juggling to get anything but a discord. You'll have few problems if you just want to play a tune you already know, but the system is very limiting if you're trying to compose something original.

ENVELOPES

You can, at any point, change the tone and volume envelopes allocated to a voice. This alters the sound the program makes, as if the voice had changed instruments. Unfortunately there are only eight different 'instruments' to choose between, and they aren't terribly exciting either. If you want to alter them to suit your musical tastes, you'll need to load the separate *Synthesiser* program.

A simple utility, *Synthesiser* allows you to draw the overall shape of an envelope, stretch it into whatever shape you want, and save a set of the things on tape or disk. You can play a note with the given envelope as you alter it, but it can be quite hard to tell from this what it would make a whole tune sound like. There's only one way to find that out, and that means reloading *Music Composer*. It would have made things much easier if the two programs had fitted into memory at the same time.

USING THE LIGHTPEN

The great thing about this package should have been the lightpen option, and the way it should make entering and editing the music so much easier. Sad to say, it isn't and it doesn't. For a start, the lightpen won't allow you to simply point at the stave and put a note on it. Instead you have to point the lightpen at the treble clef and hold the space bar down to raise the cursor – or similarly with the bass clef to lower it – and then hit <enter> to put the note in place.

Furthermore, despite advertising claims of compatibility with the DK'tronics pen, only the Electric Studio Mark II pen proved suitable for operating the on-screen icons out of four pens that I tried. Even then the pen could only control a handful of program functions, the rest requiring keyboard input.

There is, however, a joystick option which proved to be well thought out and a pleasure to use. You can't operate any of the icons with a joystick, though, but then the function keypad arrangement works so well there would be little point anyway.

Overall then, a pleasant enough package to use, and one that can give decent results. However it is not as powerful or as easy to use as *The Music System* from Rainbird (reviewed in our March issue).

GOOD NEWS

- ▶ **Nice function pad controls.**
- ▶ **Automatically inserts barlines.**
- ▶ **Lightpen and joystick control options.**

BAD NEWS

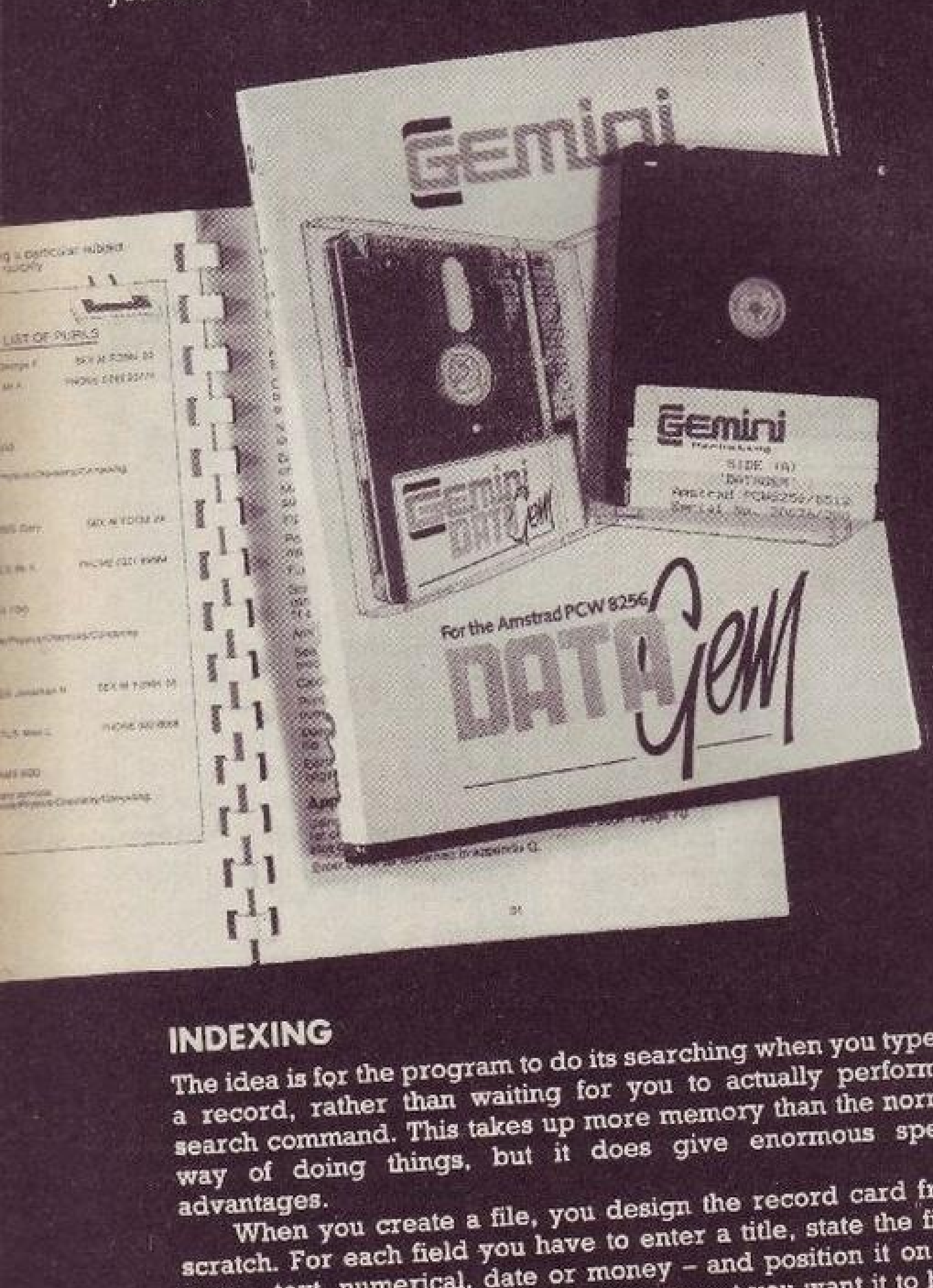
- ▶ **Can only see your composition one voice at a time.**
- ▶ **Bad error trapping on the 464.**
- ▶ **Lightpen controls aren't very useful.**
- ▶ **Non-scrolling display is a problem.**
- ▶ **Looks puny and overpriced compared to Rainbird's Music System.**

DATAGEM

DATAGEM Gemini £39.95 PCW machines only

According to the current Gemini adverts, *DataGem* was written specially for the PCW 8256 rather than being ported across from older machines. If this sounds like *DataGem* is carefully tailored for the 8256, offering features ported applications can't hope to match, that's because the adverts miss out one crucial fact – that the program is written in Mallard Basic.

As such it gains little if anything from being an 8256 original, since Mallard programs have to work via CP/M the same way ported programs do. There is an option to redefine the function keys from within the program, but otherwise the only special 8256 feature dealt with is the printer – and here the assumption is made that you'll only ever want to use the printer supplied with your 8256. Even taking this much for granted, the results aren't spectacularly better than the output of your average ported application. Advertising claims aside, the big problem with writing a database in Basic is one of speed. The heavy duty tasks, searching and sorting, tend to be too slow for comfort if you're using a Basic program and a large number of records. *DataGem* gets round this by a system of indexing that makes for rapid searching, however many records you have in your file.



INDEXING

The idea is for the program to do its searching when you type in a record, rather than waiting for you to actually perform a search command. This takes up more memory than the normal way of doing things, but it does give enormous speed advantages.

When you create a file, you design the record card from scratch. For each field you have to enter a title, state the field type – text, numerical, date or money – and position it on the screen. You also have to say whether or not you want it to be a **key field**.

Key fields are the heart of the indexing system. There are always, the thinking behind it goes, some fields you are going to want to search far more often than others. For each of these 'key fields' the program keeps an **index**, listing all the records in order. So if, for example, you're maintaining a club membership list and have 'Surname' as a key field, the program will keep a 'Surname' index which lists all the members in alphabetical order of surname.

This cuts out almost all the work of searching. If you want to browse through the records of all members with surnames between 'Jones' and 'Smith', for example, the program needn't check the surname on every record. It simply checks the 'Surname' index, and this immediately gives it all the information it needs.

Of course, there is a price to pay for all this. The indexes take up valuable disk space, for one thing, and they have to be updated every time you type in a new record. Because of this, and the limitations of Mallard's file handling commands, only eight fields on the card can be key fields out of a possible 32 – but this is enough for most purposes.

BROWSING

Once you've run a search on your file you can browse through all the records that fell within the search range. You can edit the individual records found, print them out or simply flip through them on screen. If the key field search gives you too many records to browse through comfortably, you can narrow your selection down a bit by including search conditions for other fields.

You can set these extra conditions for any field on the card, key or otherwise. They can be search ranges like the 'Jones-Smith' example, or search strings – words or phrases which the program checks a field for.

Unfortunately you have to set up a search range on a key field, even if you're only interested in one of the ordinary, non-key fields. More seriously, additional searches – even on key fields – don't have the benefit of indexing to speed them up. With a large number of records, that Basic could really start to drag.

VERDICT

The heart of a database is the search-and-browse system, and here *Datagem* is rather patchy. Although very fast on searches by a single key, extra conditions soon slow it down. Also, it can be very awkward setting up the kind of conditions you want.

Otherwise the program's speed is quite acceptable – apart from taking quarter of an hour to work out how many records it can fit on the disk. The main problem in using the program is its tendency to make simple tasks complex and awkward – for all the strengths of the indexing system, you might well prefer something a little simpler. Documentation was pre-production, but quite sufficient as it was.

GOOD NEWS

- **Fast search by a single key.**
- **Fully definable record card.**
- **Useful file merger and nice calculations facility.**

BAD NEWS

- **Simple tasks can be very awkward.**
- **Takes its time with multiple-key searches.**
- **Very fussy about disk changes.**
- **Disk size routine is ridiculously slow.**
- **Could be written yourself if you konw your way around Mallard Basic.**

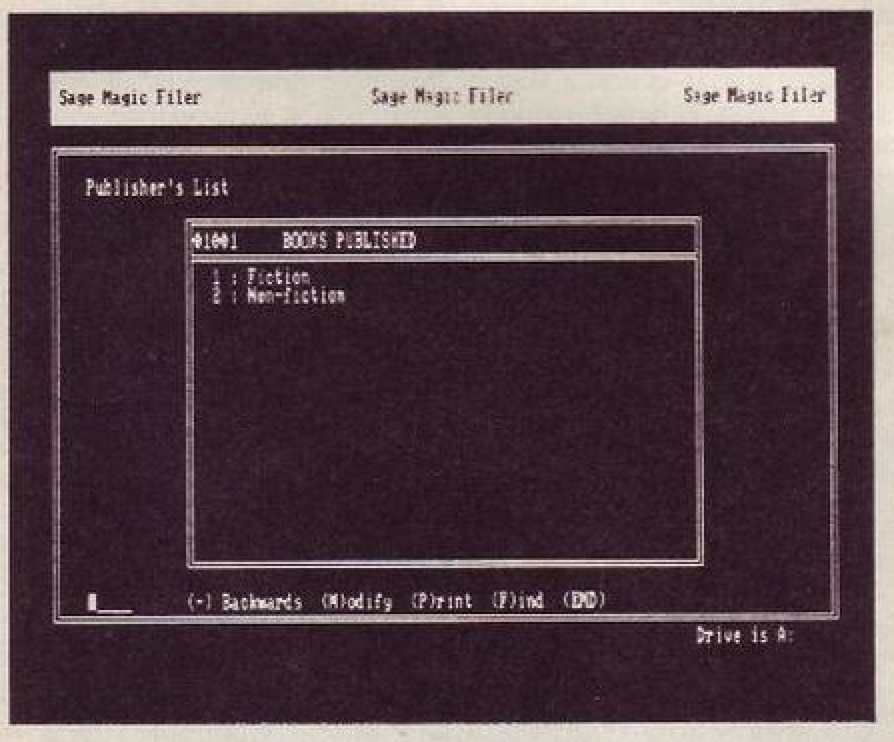
MAGIC FILER

SAGESOFT
PROGRAM
VERSION NO.
MACHINE FORMAT
SERIAL NO.
Sagesoft Ltd.

This package sets out to solve your information handling problems – but it isn't a database. It is in fact a filing system intended to organise your data into a tree structure. This would be suitable for handling a product list, for example, or the contents of a library.

THE CATALOGUE

Your data is filed away in a **catalogue**. To construct this you have to divide your data into general categories. If you're filing information on a book publisher's list, forexample, these might be 'Fiction' and 'Non-Fiction'. Type these two categories in and you'll have a **menu** which looks like this:



```
Sage Magic Filer          Sage Magic Filer          Sage Magic Filer

Publisher's List

        #1001     BOOKS PUBLISHED
         1 : Fiction
         2 : Non-fiction

_        (-) Backwards  (M)odify  (P)rint  (F)ind  (END)
                                                      Drive is A:
```

You can now break any of these entries down into narrower 'sub-categories', creating more and more specialised menus. Each sub-category can be further divided in this way, and the process continued as far as you want to go. Once you've completed this process, you can then enter a page of data rather than a further menu.

TREE STRUCTURE

This menu/data page system gives the catalogue a tree structure. To find a particular item in the catalogue, you branch through successive menus until you reach the data page you are looking for. However movement within the system is not confined to this branching process. Each menu or data page has an individual 'ID' number, and typing this in will take you to the page you require from anywhere in the catalogue.

Alternatively, you can use the FIND command to search for all those data pages which have a particular **keyword**. This is not a search facility in the normal database sense – keywords are tags that you enter in the margins of a data page, solely for the purposes of FINDing that page later. They are not normally visible when viewing the page, and editing them is an awkward process.

EDITING AND REFERENCE

As well as bypassing the tree structure, you can prune it and move the branches around using the disconnect/reconnect command '$'. To do this, of course, you need a fair grasp of the current shape of the tree – and that's none too easy. There is no indication of how deep you are in the tree, and no way I could find of getting any sort of overview.

The catalogue is accessed and edited using single- or two-letter commands rather than control codes. There is a list of appropriate commands maintained on screen, but it is not exhaustive. The reasoning behind whether a command is displayed or not is unclear: why list KEY, which edits a page's keywords, but not DIC, which displays them?

The system is slanted strongly towards referencing your data rather than manipulating it. Editing can be tricky, and having to tag data pages with keywords is laborious to say the least. Even worse, there's no word-wrap on data page entries, which can make your text difficult to read.

It's not that referencing is much easier, what with three-digit page numbers to remember; but there are good facilities for reference-only use. Once the database has been set-up, inexperienced users can refer to the catalogue in read-only mode without risk to the data.

DOCUMENTATION

Though the manual is clearly written and avoids unnecessary technicalities, it lacks a proper reference section. If you want to know exactly what a command does or the kind of inputs it's going to expect, you'll have to rummage through the various tutorial sections – and there's no index to help you. For £70, you might expect something a bit better.

GOOD NEWS	BAD NEWS
▶ **Easy to access data.** ▶ **Tree structure makes for logical storage.** ▶ **Read-only mode protects data from inexperienced users.**	▶ **Very inflexible.** ▶ **Awkward to enter and edit data.** ▶ **A lot of money for what you get.** ▶ **Manual needs a proper reference section.** ▶ **You can only have one catalogue per disk.**

VERDICT

The package is not very flexible, and you'll need to be very sure it can handle the tasks you've got in mind before you buy. It's not really suited to inventory maintenance, and lacks the search facilities needed for general data handling. If tree-structuring appeals to you, bear in mind that Caxton's *Brainstorm* can do the same job, is much more flexible, and costs £20 less. ☐

MAGIC FILER Sagesoft £69.95 PCW machines only

PCW BOOKS

The 8256 and 8512 are impressive machines, but they are badly let down by their documentation. To be fair, Locoscript and CP/M Plus are pretty tough subjects to deal with – but that's all the more reason why you need a good manual to explain them.

Problems like this are nothing new in computing, and there are plenty of publishers willing to step into the breach. The two books reviewed here are the first to deal with the 8512 as well as the older 8256. The differences between the two machines are particularly important at beginners' level, so the books could meet a real need – but how do they shape up?

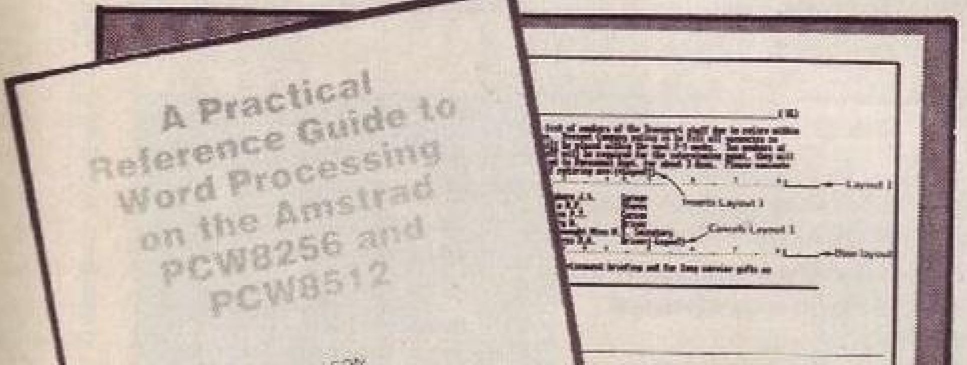
A Practical Reference Guide to Word Processing on the Amstrad PCW 8256 and PCW8512

by F.A. Wilson
£5.95 from Bernard Babani Publishing

This is the cheaper of the two books, and I'm not just talking about the price. The paper is thin, low quality stuff and not exactly brilliant white. What's more, all the book's typesetting was done on a PCW8256 and associated printer, so it falls a long way short of normal paperback standards.

In a way, though, the paper and typesetting both work to the book's advantage. Being perfect- rather than spiral-bound, you might expect problems typing and keeping the book open at the same time. In practice the flimsy paper, coupled with the book's large format, make this easy on all but the first and last few pages.

As for the typesetting, this too is useful. It not only acts as a good demonstration of the system's capabilities, but also allows the author to demonstrate text styles, formats etc. in the text itself.


A Practical Reference Guide to Word Processing on the Amstrad PCW8256 and PCW8512
F.A. WILSON

TECHNICALITIES

The book's real difficulties lie not so much with its form as with its content. For one thing, the author makes the mistake of getting too technical too early. After two pages of introduction he launches into a description of binary numbers, bytes and machine language.

This really is not the sort of thing most first-time users want to know about right at the start of a 'Practical Reference Guide'. It's the sort of thing that puts a lot of people off programming guides, so what it's doing in an applications book I'm not quite sure. To be fair, a little technical knowledge can be very helpful – but not this, and not here.

LOCOSCRIPT AND CP/M

It's hardly fair to judge a book like this by its first few pages alone, and anybody making it past there will certainly find the going gets a lot easier.

The book takes you through Locoscript and CP/M from direct print mode and simple disk operations, to the intricacies of templates and units. The author goes into a fair amount of detail in all this, but mercifully steers clear of further technicalities.

Where the text outlines a procedure for, say, setting up a template, you're given a sort of flow-chart showing what you have to do, and what responses you'll get on your screen. These can get a bit cluttered at times, but are for the most part very helpful.

My main complaint is with the long-winded writing style which gets in the way of the explanation. This is a matter of taste, of course, but I did find it made the book quite hard to read.

GOOD NEWS

- **Covers Locoscript in great detail.**
- **Helpful diagrams showing you what to do.**
- **Typeset on an 8256, so what you see is what you get.**

BAD NEWS

- Off-putting and unnecessary technical chapter.
- Writing style makes the book heavy going.
- Looks and feels cheap.

Mastering the Amstrad PCW 8256/8512: Word Processing and Personal Computing

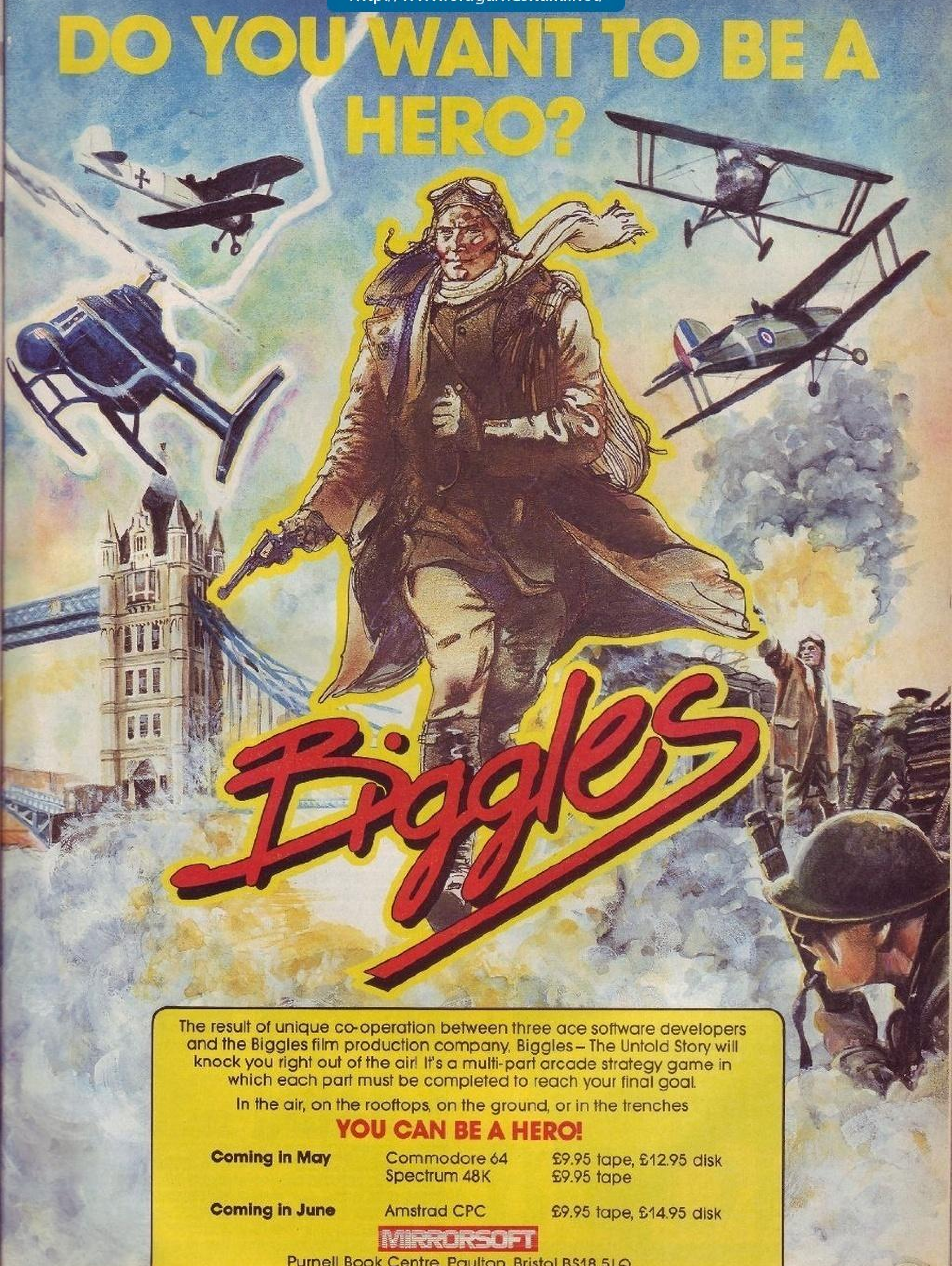
John M.Hughes
£8.95 from Sigma Press

The contrast between this and the previous book is marked. Far from being long-winded, the writing style here is brisk and to the point – and with good reason. Being conventionally typeset the book packs rather more text onto each page, and has more pages, but it has a lot more ground to cover.

Although Locoscript is covered in considerable depth, itaccounts for less than half the book. The remainder is given over to a thorough explanation of CP/M, and a guided tour of common applications programs.

LOCOSCRIPT

There's quite a difference between this and F.A.Wilson's book, even as far as Locoscript coverage is concerned. The emphasis here is on the features of Locoscript as a program, rather than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MIRRORSOFT

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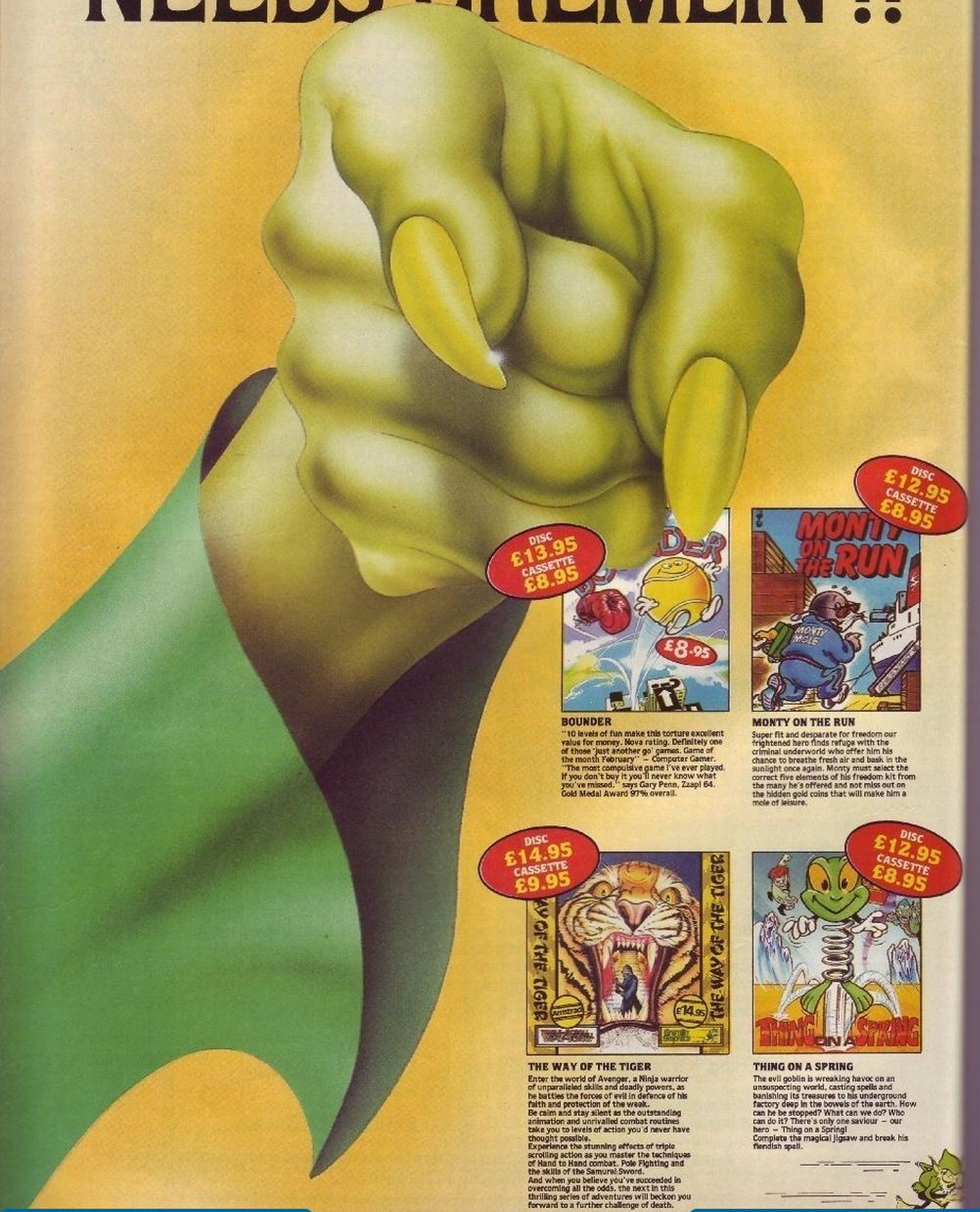

BOUNDER

"10 levels of fun make this torture excellent value for money. Nova rating. Definitely one of those 'just another go' games. Game of the month February" – Computer Gamer. "The most compulsive game I've ever played. If you don't buy it you'll never know what you've missed." says Gary Penn, Zzap! 64. Gold Medal Award 97% overall.

MONTY ON THE RUN

Super fit and desparate for freedom our frightened hero finds refuge with the criminal underworld who offer him his chance to breathe fresh air and bask in the sunlight once again. Monty must select the correct five elements of his freedom kit from the many he's offered and not miss out on the hidden gold coins that will make him a mole of leisure.

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THING ON A SPRING

The evil goblin is wreaking havoc on an unsuspecting world, casting spells and banishing its treasures to his underground factory deep in the bowels of the earth. How can he be stopped? What can we do? Who can do it? There's only one saviour – our hero – Thing on a Spring!
Complete the magical jigsaw and break his fiendish spell.

Limited, Alpha House, 10 Carver Street, Sheffield on the appearance and layout of the finished printout.

The approach you prefer is very much up to you. I found this book much clearer on what you have to do to make the most of Locoscript. It's true that there's very little in the way of sample printouts, so you might not be too sure at first quite what, for example, bold italic half-height is going to look like. But I don't really think this is a serious problem – after all, if you want to know what something's going to look like the simplest thing to do is print it out and see.

The other point to bear in mind is that this book doesn't have flow-charts to guide you through procedures. Again it's a matter of taste, but I found John Hughes's clearer writing style more than made up for this.

Mastering the Amstrad PCW 8256/8512:
WORD PROCESSING AND PERSONAL COMPUTING
John M Hughes
SIGMA

CHAPTER TEN
Spreadsheets — Supercalc2

USING CP/M

Although the Locoscript section does deal with simple disk use, a thorough treatment of CP/M has to wait until almost halfway through the book. In three well thought-out and clearly written chapters the author covers the main utilities, installation problems, and **.SUB** files.

Just as with Locoscript, pretty much all the information here is to be found in the first 8256/8512 manual, but this book draws it together in a usable form. In particular the chapter on .SUB files makes the useful process of producing turnkey disks simple and straightforward. Even if you don't know what a turnkey disk is at the moment, this book will make everything crystal clear.

APPLICATIONS

Lastly the author considers the alternatives to word processing, namely databases and spreadsheets, and one alternative to Locoscript as a word processor; New Word. After a brief explanation of what for example a database does, the coverage confines itself to one mainstream package with a brief glance at less orthodox alternatives.

I am, I must admit, rather sceptical as to the value of this section. If you don't know what a database is then the relevant chapter will certainly tell you – but I'm sure there's no need or use for this much detail. That said, the spreadsheet chapter earns its place by pointing out the non-financial possibilities of the things.

GOOD NEWS	BAD NEWS
▶ Straightforward and clearly written. **▶ Good, practical Locoscript and CP/M tutorials.** **▶ Interesting material on various applications.**	**▶ Costs a bit more.** **▶ Locoscript chapters are short on sample printouts.** **▶ No flow-charts to help you.**

...And now we turn to the CPC machines, with a book for program hackers

Powerful Programming for Amstrads – Supercharge your 464/664/6128

W.Johnson
Sigma press, price £6.95

Long titles seem to be the flavour of the month in the world of computer books. So, it seems, are serious computing subjects.

This book is aimed chiefly at those Arnold owners who want to write practical, problem-solving programs with a mathematical or similar slant to them. It takes the form of a collection of subroutines, with notes on the underlying method and the programming techniques involved.

THE ROUTINES

The routines are a very mixed bag indeed, varying from the very useful to the completely pointless. While many of them do tiresome or difficult tasks neatly, a lot of space is given over to trivialities.

On the useful side of things there are routines for matrix manipulation and high-precision arithmetic, a variety of sorting routines, and a handy regression program. While all fairly specialised, these could save you quite a bit of effort.

In contrast, a number of routines are of very little use at all. There are routines to round numbers in different ways, or to convert between binary, decimal and hex – despite the fact that Locomotive BASIC provides specific keywords to do these jobs. Other pointless routines include one which finds factorials. A whole page is given over to this seven-liner – and I really can't imagine anybody using it rather than writing their own.

The problem with books of subroutines comes when you try to use the routines themselves. If it takes you as long to type them in and tailor them to your precise needs as it would have to write your own, you have wasted your money on the book. While these routines are for the most part fairly self-explanatory, they are very short on comment and the notes aren't always too helpful either.

It's not exactly an advantage that most of the routines are straightforward, either. If you look at a routine and it's immediately obvious to you how the thing works, you could probably have written one yourself without much trouble. If you write a lot of mathematical programs, you're lazy and you like typing things in, this book could be what you're looking for – but that rules out most people, I should think. ☐

GOOD NEWS	BAD NEWS
▶ Some genuinely useful routines.	**▶ Duplicates actions of BASIC keywords in places.** **▶ If you want the routines, you could probably write them yourself.** **▶ Very little comment in the listings.**

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PRIDE PRINTER PORT	▨	▨	▨	
SPIRIT		▨	▨	▨
TOMCAT & RSX SYCLONE 2			▨	▨
FIDO	▨		▨	▨
PRINTER PAC II			▨	▨
SUPER SPRITE			▨	▨
PRINTER PAC 1 & SCRIPTOR		▨	▨	▨
ODDJOB	▨			▨

THE ALL-ACTION REVIEWING SYSTEM

Action test has a slightly different air this month: a sort of dank, musty dungeon smell. You don't need to look far for the cause because the Pilgrim has found his way out of his regular monster-filled haunts to bring you the Mastergame review. That's right, our first adventure Mastergame is *Heavy on the Magick* which combines text adventuring with superb animation to bring you an animated adventure that made Pilg's eyes light up under his cowl.

***Harvey Headbanger* is a budget game that nearly pipped Pilg for the Mastergame, having some tremendously cute, colourful and addictive action. Disc owners will be delighted with *Tau Ceti: The Special Edition*, arcade freaks will flip over *Bombjack* and arcade adventurers have *Shogun* to drool over. In fact there's something for everyone. So what are you waiting for...get reading.**

1. EXPERT GAMEPLAY. No game gets written up until it's had a long and thorough test. Take software editor Bob Wade. Despite his tender years and sensitive soul, he's pretty deadly with a joystick and happens to have played virtually every Amstrad game ever released. As they say down in these parts, BW reaches the parts other reviewers can't touch.

2. EXTRA OPINIONS. It's always dangerous to rely on just one reviewer – tastes vary enormously. So all the games we review are looked at by at least two people – Bob Wade and Andrew Wilton – who quite often disagree with each other, and when they do, they say so!

3. LABELLED SCREEN SHOTS. It's obviously important to print screen-shots, but often they can be hard to make sense of. Labelling the different elements can make all the difference.

4. CLEAR SUMMARIES. Ever read a review where you ended up confused about the verdict? No chance of that happening here. To make our own views crystal clear we include a concise summary under the Good News/Bad News headings.

5. RATINGS BOXES. We rate our games using percentages for extra flexibility and precision. And with so many games to work through, it's a help to see at a glance which are good and which aren't. Our ratings boxes do this – just look out for the games with long bars and dark tips.

6. GREEN SCREEN VIEW. Some people have to make do with a green screen monitor for their games. Our Green Screen View lets them know if they're worth the effort of loading.

ACTION TEST

MASTERGAME

Heavy on the Magick	Gargoyle	**54**

AA RAVES

Harvey Headbanger	Firebird	**44**
Shogun	Virgin	**46**
Starquake	Bubble Bus	**47**
Bombjack	Elite	**62**
Equinox	Mikro-Gen	**62**
Tau Ceti: The Special Edition	CRL	**64**
They Sold a Million: II	Hit Squad	**64**

GAMES TESTED

Killapede	Players	**48**
Nodes of Yesod	Firebird	**50**
Rad-Zone	Mastertronic	**50**
Monopoly	Leisure Genius	**51**
Trollie Wallie	Players	**52**
Gunfright	Ultimate	**56**
Basildon Bond	Probe	**56**
Dambusters	US Gold	**58**
Nuclear Heist	Players	**58**
Voodoo Rage	Antartic	**59**
Rock'n Wrestle	Melbourne House	**66**
Toadrunner	Ariolasoft	**65**
Spiky Harold	Firebird	**60**
Classic Invaders	Bubble Bus	**65**
Disc 50	Cascade	**66**

AA Ratings – how they work

GRAPHICS. What the game looks like: colour, definition, animation, imagination, smoothness. Only part of a game's graphic quality is apparent from the printed screen-shots – obviously these can't show thing like smoothness of movement.

SONICS. Game sound. To get a high rating a program will probably need a wide variety of well-chosen sound effects and a pleasing musical sound-track. Effects which are annoying or old hat may seriously affect this rating's health.

GRAB FACTOR. Does the game really GRAB you? Are you hooked? How ADDICTIVE is it? Grab Factor refers to the intensity of the desire for 'one more go'. And although it's not a measure of 'instant appeal' Grab Factor won't be rated highly on programs that are EXTREMELY difficult to get into. The basic test is this: after you've loaded up a new game, read the instructions and played it for half an hour, does it then irresistibly draw you back for more?

STAYING POWER. A game may be astonishingly addictive for a while (and therefore have a high Grab Factor) and yet lack depth and therefore lose interest fairly quickly. Staying Power tells you how LONG interest in the game is likely to last. This depends on such matters as the number of screens and levels, the variety of the task, the degree of long-term challenge. In short the game's DEPTH. An addictive game with only a couple of screens will get a high Grab Factor and low Staying Power. One with a 1000-screen playing area and which takes a lot of getting into would be the other way round.**AA RATING**. This is our overall verdict on the game, the result of a very hard sum involving all the other ratings, plus factors like price, originality, quality of packaging and instructions and anything else we can think of. It's normally pretty close to the Grab Factor and Staying Power ratings, because these are how most people judge the worth of a game. Getting an AA Rating above 80% earns a game the much sought after label of AA RAVE, while the highest rated game in any month becomes our MASTERGAME – we go through agonies before selecting that one.

Compatibility

All the games reviewed this month are compatible across the whole CPC range.

HARVEY HEADBANGER

Firebird, £1.99 cass, joystick or keys

What's so great about a single screen budget game which you can learn to play in 10 seconds? Gameplay – that's what. Despite its simplicity this game has mind-warping, addictive gameplay that make it an essential buy, and difficult to stop playing once you've got it.

The key to the gameplay is originality. You won't have encountered a game quite like this before on a computer, even though it is such a simple concept. The game takes place on an 8x6 grid of squares where Harvey Headbanger and his rival Hamish Highball try to outwit each other in a test of skill and fast reactions.

The roles of Harvey and Hamish can be taken by either two players, one player against the computer, or the computer can control both in a demo game. The one player game is tough, but obviously a lot more fun can be had when two players battle against each other. H and H are spherical, buck toothed, wild haired, bug eyed lunatics who have a novel way of getting around the screen.

The grid is split horizontally by lines from which the protagonists can swing from side to side, or jump up or down to change lines. This brings a great look to the action because they are wonderfully animated and totally manic. They can swing freely about the grid, making right angled turns when changing direction.

The two H's each control a different colour, changing a grid square to that colour when they pass through it. The idea isn't to turn the whole grid to your colour, but to try to encircle your opponent with squares of your colour so that the space within, including your opponent, gets filled in. This wins a game and a set number of games, specified at the start, will win the contest as a whole.

It isn't that simple though because either player can gain an advantage over the other by creating and drinking cocktails. Yup, you read that right – cocktails. The names of the fat fighters may have given it away and there are yet more silly drinks involved. These are the Slim Jim, Hong Kong Fizz, Crystal Highball and the Tequila Sunrise, all of which have a desirable effect on the H that manages to drink them.

Cocktails are created by encircling a coloured area of your opponents squares with your own. They can then be passed over and drunk, increasing the liquid level in a straw at the side of the screen. This becomes important when the two fatties collide on the same square. They turn black and spin off completely out of control, but the one with the higher liquid level will regain control first and can try to encircle his helpless opponent as he reels around the screen.

When a player is trapped he disappears in a splodge of colour leaving a pair of boggling eyes. Enemy cocktails can also be removed by encircling them, causing them to disappear with a colourful Zap. They also disappear if left undrunk for too long. Victory is greeted by the winning player swinging full circles on a line.

The animation and use of colour give the game a cartoon feel, and the musical ditty that tinkles along during play sounds nice. The gameplay is the clincher though with the five computer skill levels providing stiff opposition to start with, and a human opponent giving more unpredictability and excitement to keep the action going. One of the most addictive and impressive budget titles I've seen, particularly when you play with two players.

BW

SECOND OPINION

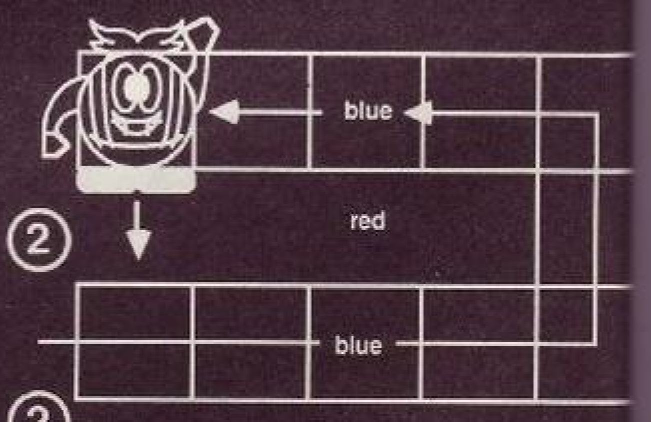
Cute graphics and murderous gameplay will hook you and keep you hooked. If you like arcade action and board-game strategy then fasten your seatbelts, 'cos this has got both – at the same time! The computer's Hamish gets vicious on the higher levels and a human opponent is even worse, so you'll have to think fast and move faster. Great value at five times the price!

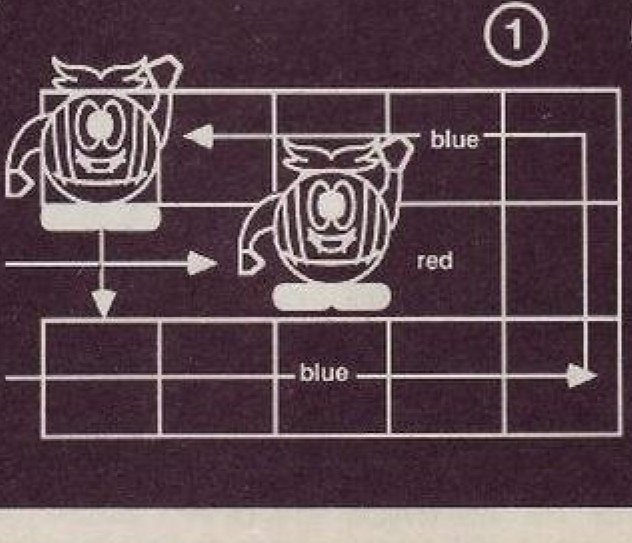
AW

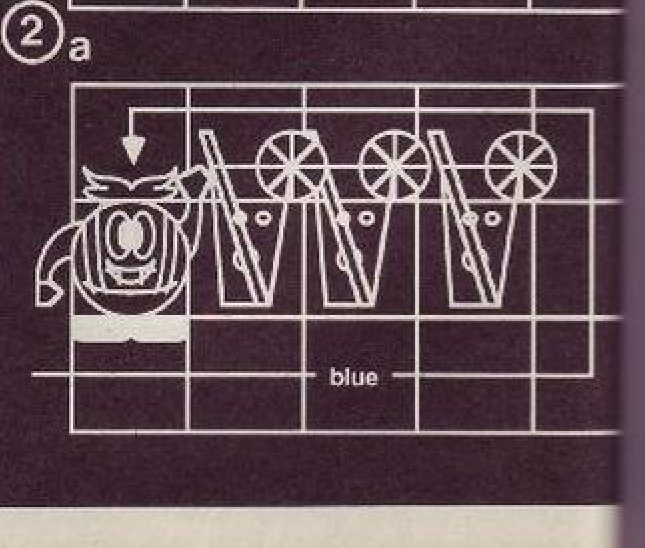
The evil Hamish

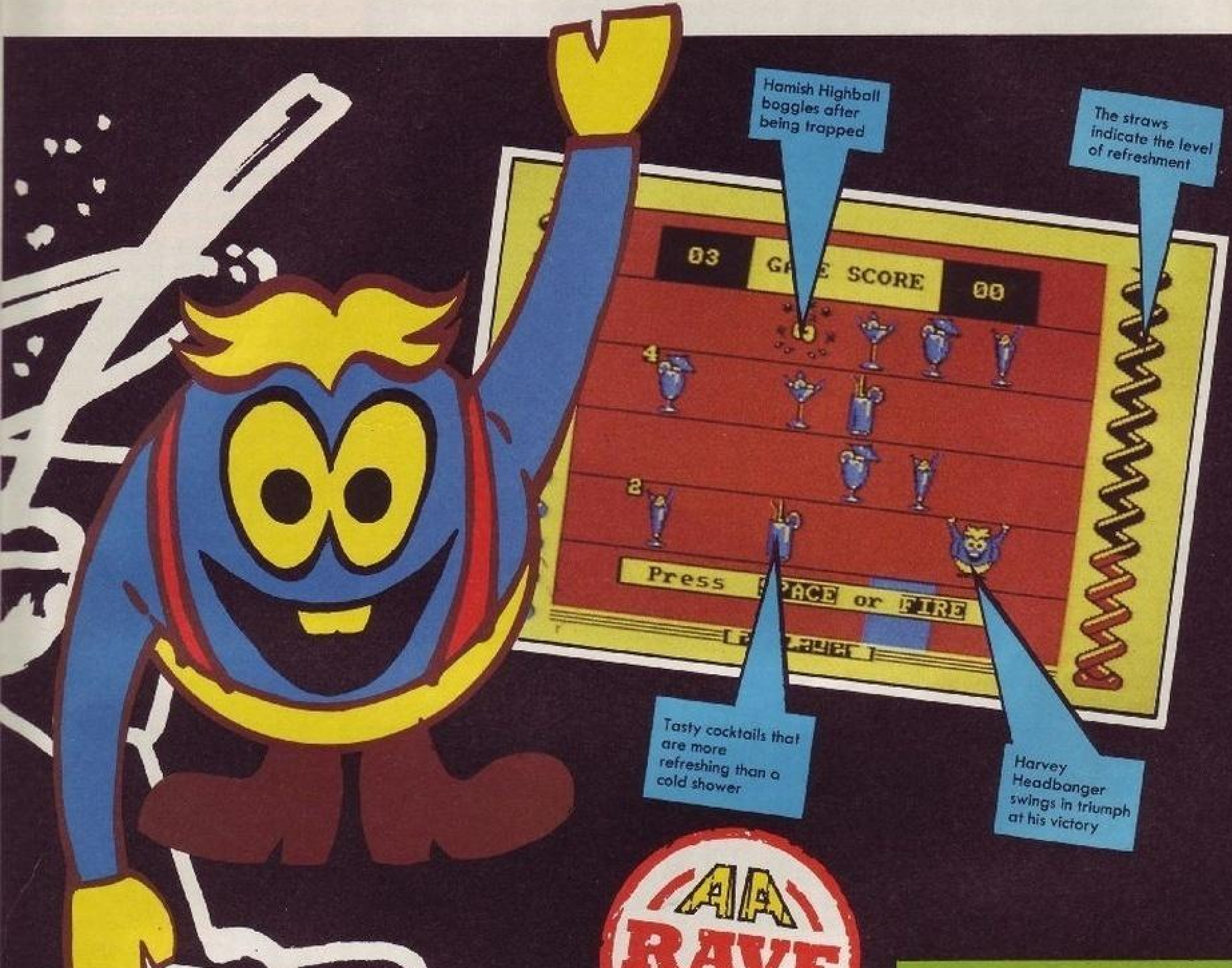
Just to make clear what Harvey is up against, here it is in diagram form. Diagram 1 shows Harvey in serious trouble. Hamish has encircled him with a row of blue squares and is about to complete the rectangle. Bye bye Harvey.

Diagram 2 shows how nasty Hamish creates cocktails to build up his strength. A patch of red has been encircled. One more move and pow! (2a) three lovely cocktails.








03
GAME SCORE
00
4
2
Press SPACE or FIRE
[1 PLAYER]

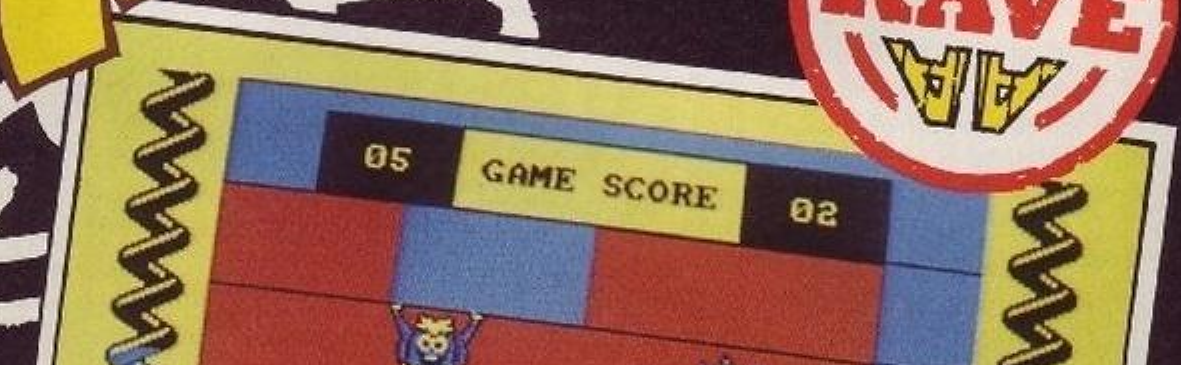
Hamish Highball boggles after being trapped

The straws indicate the level of refreshment

Tasty cocktails that are more refreshing than a cold shower

Harvey Headbanger swings in triumph at his victory

AA RAVE AA


05
GAME SCORE
02
Press SPACE or FIRE
[1 PLAYER]
[LEVEL]

Harvey and Hamish bouncing each others heads around

GREEN SCREEN VIEW

A colour changing option keeps everything nice and visible, but it's a shame to miss those bright, clean colours.

AW

GOOD NEWS

- ▶ **Great cartoon graphics.**
- ▶ **Original game idea and features.**
- ▶ **Fast, addictive gameplay.**
- ▶ **Makes your mind work overtime and gets the adrenalin going.**
- ▶ **Lots of fun with two players.**
- ▶ **All this for a budget price.**

BAD NEWS

- ▶ **Computer opponents are good but follow predictable patterns at the start of each game.**

GRAPHICS	89%
SONICS	72%
GRAB FACTOR	92%
STAYING POWER	83%
A A RATING	91%

SHOGUN

Virgin, £9.95 cass, £14.95 disc, joystick only

The kings of Amstrad arcade adventuring have come up with their latest graphic classic, based on the James Clavell novel about 17th century Japan. It's radically different again from *Sorcery* and *Strangeloop*, featuring icons and totally different gameplay, but still displaying their talent for producing beautiful graphics.

The aim of the game is to become the Shogun, the supreme military leader and number two to the Emperor himself. To do that you have to get twenty followers to support you and then complete a quest given to you by the Emperor. You can take on the role of many different characters from the outsider Captain Blackthorne through peasants, servants and samurai to the nobles. The difficulty of becoming Shogun is different for each character but it isn't easy for any of them and the effort required for each is reflected in the final score.

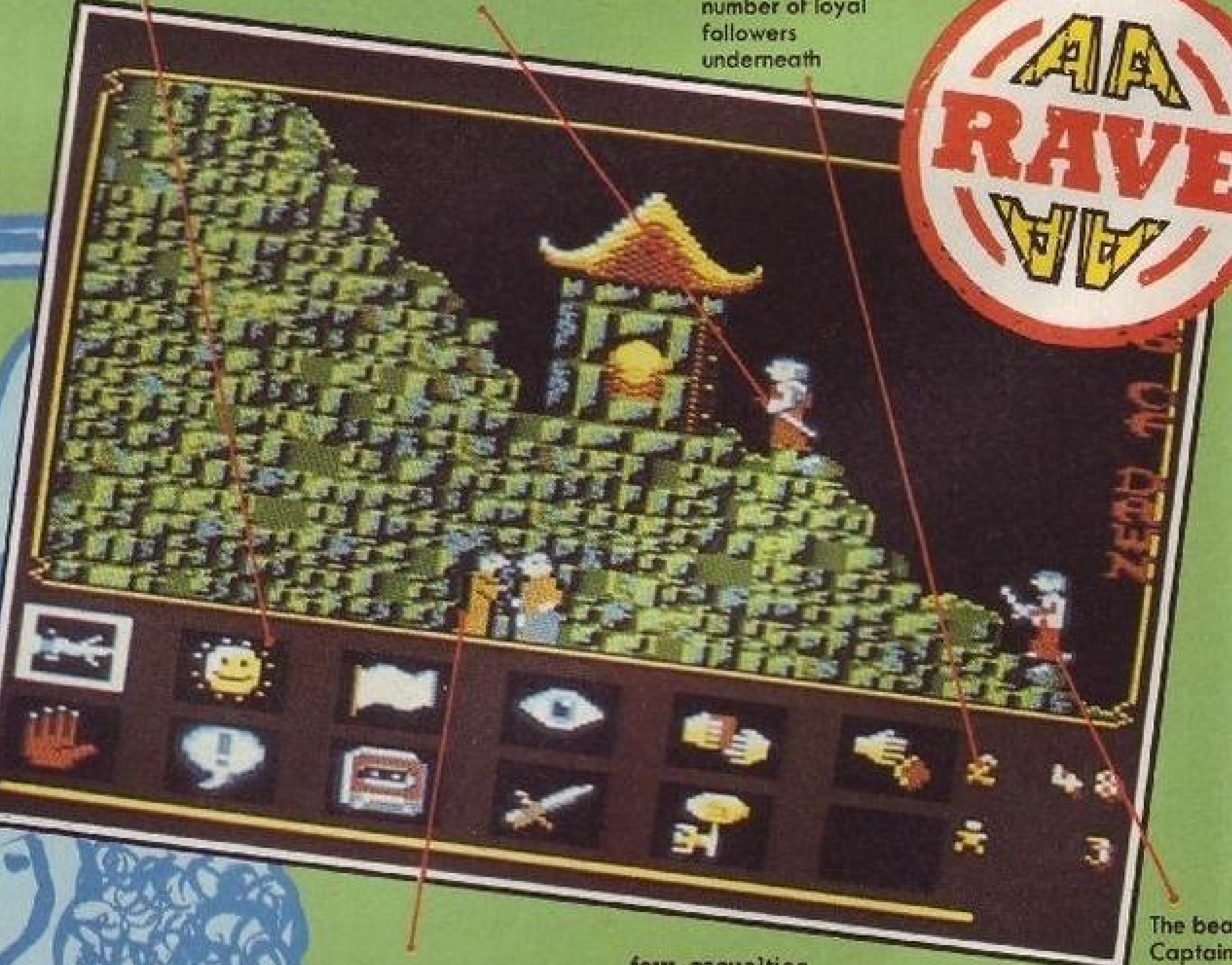
The game takes place against some very picturesque backgrounds consisting of hillsides, clouds, rivers, buildings, palaces, caves, lava pits and general green scenery. These screens sometimes appear to be in pseudo 3D and at other times 2D but all of them look nice and it doesn't affect the playing of the game.

The character under your control can move anywhere on the screen, except where he is blocked by a specific object or terrain feature. These have to be discovered by experience. This means that you have the odd sight of the characters wandering around in mid-air but you'll soon get used to that and realise it's necessary and indeed desirable because of the perspective switching.

> **SECOND OPINION**
>
> *This one really grabs you with its graphic originality and size, but the gameplay has a few problems. The tasks required of you are usually pretty straightforward, the combat in particular being a matter of unintelligent hacking. The screens are wonderfully atmospheric, but the absence of clear exits can get very frustrating. An intriguing game, but not vintage Gang of Five stuff as far as I'm concerned.*
>
> **AW**

Movement around screen is rather jerky and inaccurate but fortunately this isn't too important from a gameplay point of view. What is more annoying is the difficulty and delay in moving off the edge of one screen and onto another. Once you know how the game maps out this is less of a problem but you'll need perseverance to start with in discovering where you can go.

Once you can get around the game you can start interacting with the other characters and try to complete your task using the nine icon commands at your disposal. The most important of these are the ones allowing you to attack, befriend, examine and order other characters, and give them objects. Using these you can win over people to your cause but there are bound to be a few casualties along the way – just make sure one of them isn't you.



The icon menu that allows you to interact with other characters

This ugly character is mean samurai

The money you've found with the number of loyal followers underneath

A peasant who can be easily swayed to your cause

The bear
Captain
Blackthor

The characters all have different desires, behaviour, strengths and weaknesses which change for each new game but you'll need a rough knowledge of each person's characteristics if you're to survive for long. Survival is dependent on keeping the strength gauge replenished. It's run down by some actions and built up by eating food that appears at various places. The other commodity that can be collected at frequent

Icon 'ighlights

The nine icons in the game all need to be used to get the best out of it so here's what they do.

ATTACK: very handy this one because opponents will often yield and follow you. Stubborn opponents may have to be killed (you chop their head off) or they may kill you. Fighting naturally costs you a lot of energy.

BEFRIEND: you can go round firing smiles at people to try to win them over which also costs energy but is less likely to bring them

round to your way of thinking.
EXAMINE: this can be used to find out what something or someone is and how a character may be feeling.
SURRENDER: a last resort this in a fight because you will probably lose your followers and possessions. Definitely the dishonourable thing to do.
GIVE: you can bribe other characters with money or objects to make them more amenable to you.
DROP: drops on of the three items you can carry.
PAUSE: brings welcome rest for a hard working samurai from the rigours of action.
ORDER: very important this because it allows you to order you followers to get an object, stand guard, protect you or assassinate someone. See what a privilege it is to have power in ancient Japan!
SAVE GAME: allows you to save a game at any point.

intervals is gold and a large bank balance will allow you to indulge in some underhand bribery.

When you've got 20 followers and visited the Emperor's palace you enter the second phase of the game which involves finding four different objects. How you get them and what they are you'll have to work out for yourself.

In terms of the graphics, atmosphere and game task Virgin have another excellent game on their hands. The only thing that lets it down a little is the control of the character which will cause some annoyance. The icons are used to good effect and not thrown in just for the sake of it. Most importantly of all the gameplay is good, being easy to get started on but in the long run tough to beat.

BW

GREEN SCREEN VIEW

Loses a great deal of atmosphere, and that's a serious blow to the game as a whole. No major problems with visibility, but colour does help you recognise characters.

AW

GOOD NEWS

- **Good number of very attractive screens.**
- **Nice scenario and atmosphere.**
- **Good use of icons in gameplay.**
- **Easy to get to grips with but tough to beat.**
- **Lots of different characters to play and therefore variations in the game.**

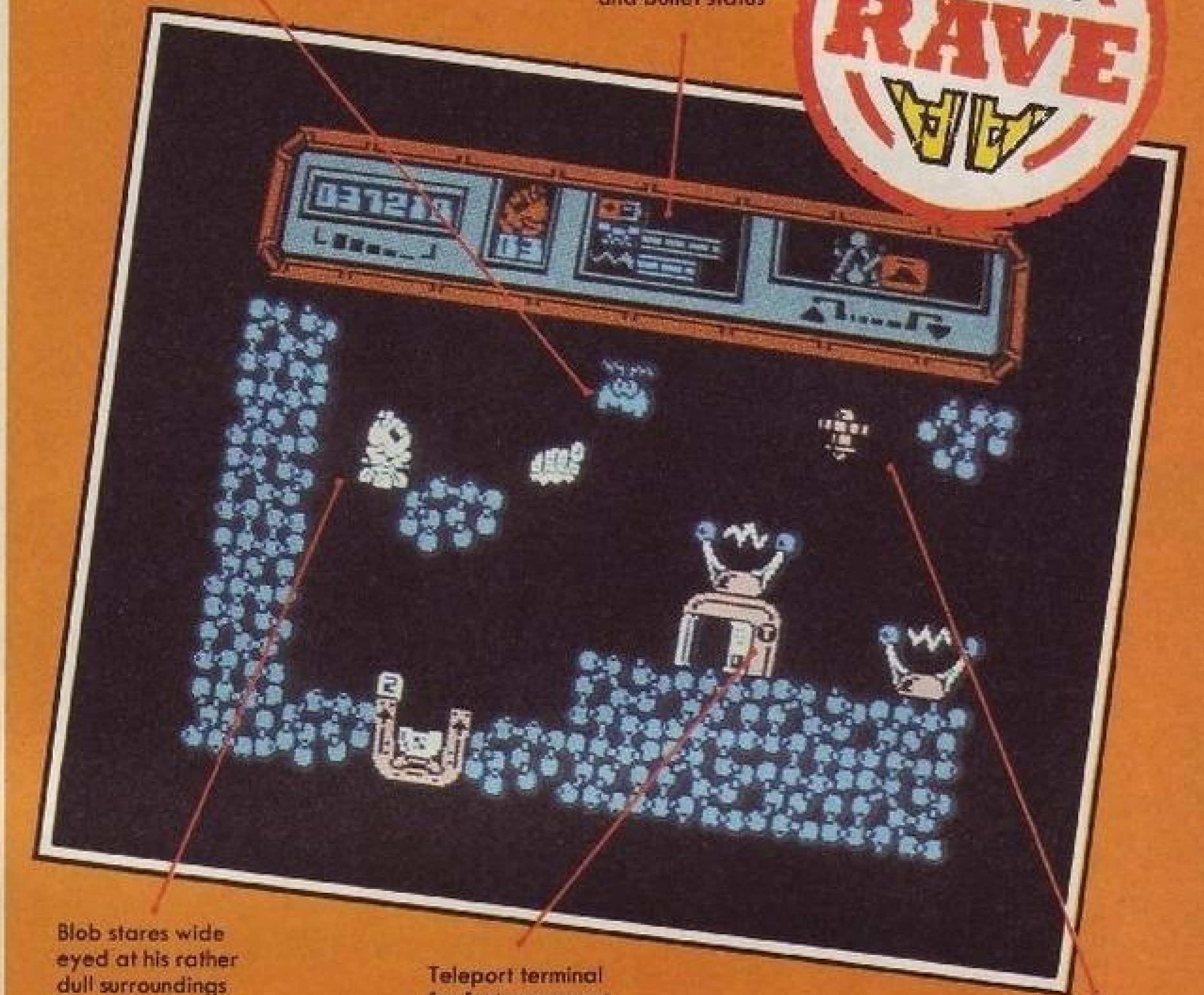
BAD NEWS

- **Character control leaves something to be desired.**
- **Some players may find the gameplay lacks depth.**

GRAPHICS	88%
SONICS	39%
GRAB FACTOR	87%
STAYING POWER	81%
A A RATING	85%

STARQUAKE

Bubble Bus, £8.95 cass, £12.95 disc, joystick or keys



This alien kills on contact

Bars indicate energy, platforms and bullet status

Blob stares wide eyed at his rather dull surroundings

Teleport terminal for fast movement between areas

Alien that drains energy

Bubble Bus are quite a small software house in comparison with the Oceans, Activisions and Firebirds of this world but they keep producing good little games. *Wizard's Lair* and *Hi Rise* were both good value for money products and this latest arcade exploration game looks set to do even better for them.

The star is BLOB (Bio-Logically Operated Being) who has to rebuild the core of a planet to save the universe – ho, hum, it's all in a day's work. Translated from the inlay that means he has to collect the nine pieces of core from amongst the maze of 512 game rooms. Naturally this task is far from easy because of the size of the game and the obstacles that face Blob.

SECOND OPINION

A big one for exploration freaks, and the gameplay's pretty strong too. There are plenty of interesting features to experiment with, and some tough obstacles to get past. It's nothing very exciting to look at, but a big task and lots of nice touches more than make up for this.

AW

The rooms are fairly simply designed to look like a cave system but the lack of variety in the colour detracts a good deal. Many of the features and aliens are drawn in detail to look good, but again colour is not used to the full. This slightly disappointing look to the game is a result of it being a conversion, but fortunately the gameplay is a different matter.

Blob is just that, a small circular creature with bug eyes who has two main methods of movement – walking and flying. Walking is done unaided but leaves Blob affected by gravity, so that he will drop like a stone when he walks off the edge of a platform. He can be guided left and right in the air but a much easier form of travel is using hoppers. These can be picked up at many points and flown freely around but restrict Blob's ability to pick up some objects and get into some game sections. They sit underneath him like a hover platform and can be dropped off at another hopper point when Blob needs to go on foot again.

GRAPHICS	67%
SONICS	43%
GRAB FACTOR	83%
STAYING POWER	80%
A A RATING	80%

Another very handy means of transportation is the teleport terminals that can be used to get to a different area of the game. Each one has a five letter name which you need to know in order to use it but once discovered they don't change in subsequent games, so travel becomes considerably faster. In some places there are

49

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The EIDOLON™

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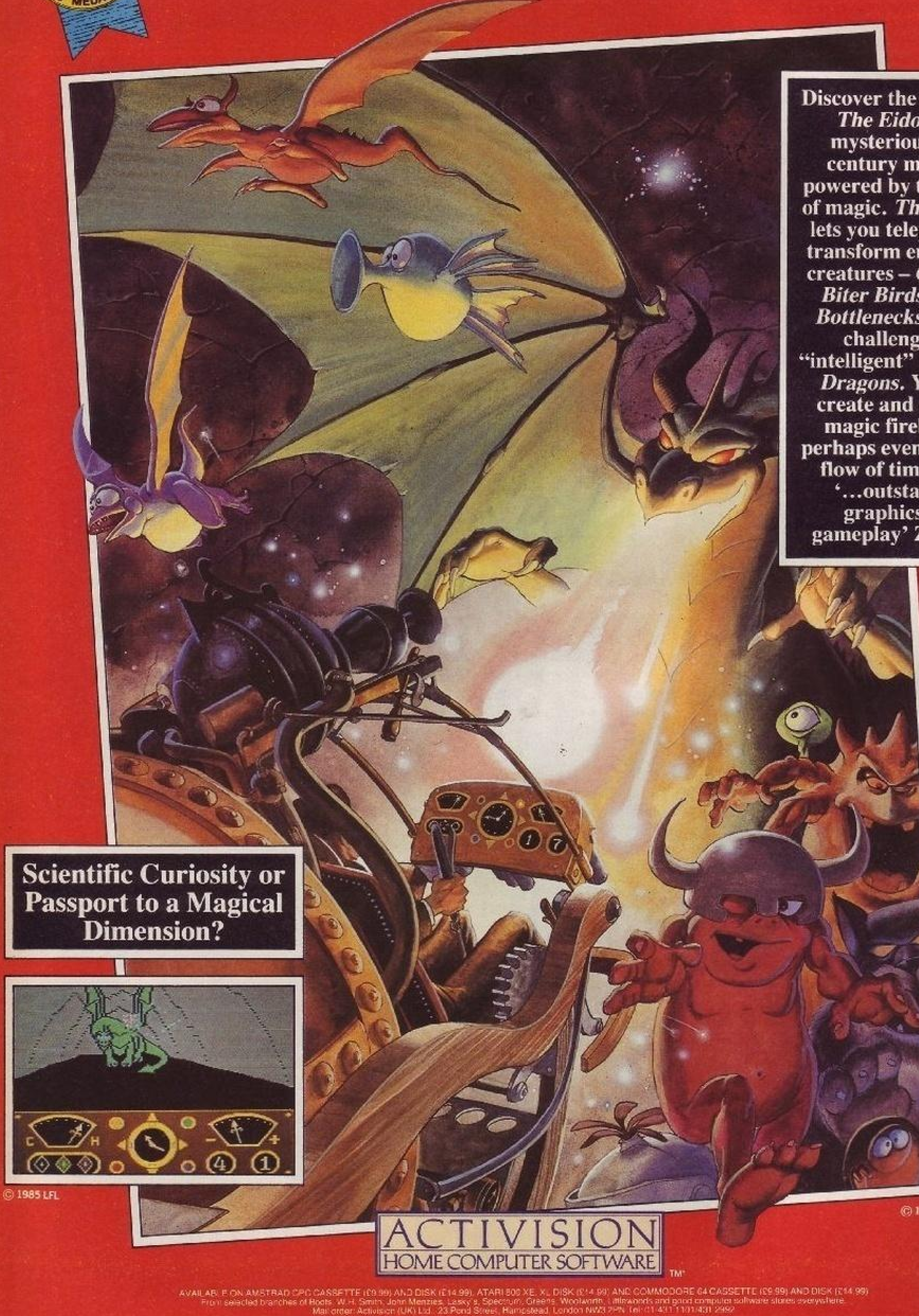

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'…outstanding graphics and gameplay' Zzap! 64

Scientific Curiosity or Passport to a Magical Dimension?

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anti-grav lifts that can only be used when on foot, but are essential in some sections where a hopper can't be taken.

The aliens that inhabit the cave come in several different breeds but there are only two important distinctions to be made between them. Most of them fly around the screen draining Blob's energy when they touch him, but one particularly nasty type explodes on contact losing him a life. Lives can also go down the swannee by running out of energy or colliding with several deadly, static objects.

Other unmoving objects can be used to help our little friend and they appear all over the place at random. There are four basic types that replace energy, platform blocks, bullets and lives. There are also the core elements, keys and passes that will be needed to complete the game.

GREEN SCREEN VIEW
Some of the aliens are difficult to see, so you can be taken by surprise, otherwise it doesn't loose a lot as the use of colour is pretty poor anyway.
AW

The blocks and bullets also help Blob out, the former being used when on foot to get him over obstacles and the latter to blast away most of the aliens. Blob can run out of all of these, particularly if you re-explore an area of the game from which you've removed all the replacements.

The action is decidedly frantic with the pressure always on from the energy-draining aliens. Along with the need for mapping and finding objects this makes the gameplay demanding so that you'll be absorbed enough not to notice the disappointing use of colour. Not very original but packed with action and challenge for any standard of player.

BW

GOOD NEWS

- **512 Screens.**
- **Nice movement controls for walking, flying and lifts.**
- **Hectic gameplay with non-stop action to cope with.**
- **Plenty of objects and features to discover and use.**
- **Tough task but easy to get into.**

BAD NEWS

- **Not much originality.**
- **Unimaginative use of colour.**

KILLAPEDE

Players, £1.99 cass, joystick or keys

You will probably have guessed from the game name that this is a version of the arcade game *Centipede*, and not the first one for the Amstrad either. There are a number of differences in style and content from the existing best, *Wriggler* from Blaby, but both are budget priced – rightly so for an old arcade game.

The action takes place in a garden under assault by a myriad of different insects, all hell bent on the destruction of your Dynamic Debugging Thing (DDT – get it? The insects will). This is located at the bottom of the screen and can move around the lower quarter of the display. It shoots knives up the screen that destroy all manner of creepy-crawly, nasty-wasty, buggie-wuggies.

SECOND OPINION
Big, bright, and colourful, it's an above average version of a truly addictive game – until you play it. It looks great, it sounds amazing, but it's too slow. There's none of the insane panic that's so vital to Centipede clones. Admire its the speech, but buy Wriggler for gameplay.
AW

The screen starts off being dotted with mushrooms that serve to get in the DDT's way, and to accelerate the progress down the screen of the killapede that appears at the top. This is the main object of your attentions and is composed of a number of segments which all have to be destroyed. When a segment is hit the killapede splits in two, leaving a mushroom behind on the spot.

Once the 'pede has been destroyed another one appears to take its place, but it is longer than before. Running into a segment causes the DDT to explode like a melon hitting the pavement from ten storeys up. This death routine is repeated every time the DDT meets any of the other pests.

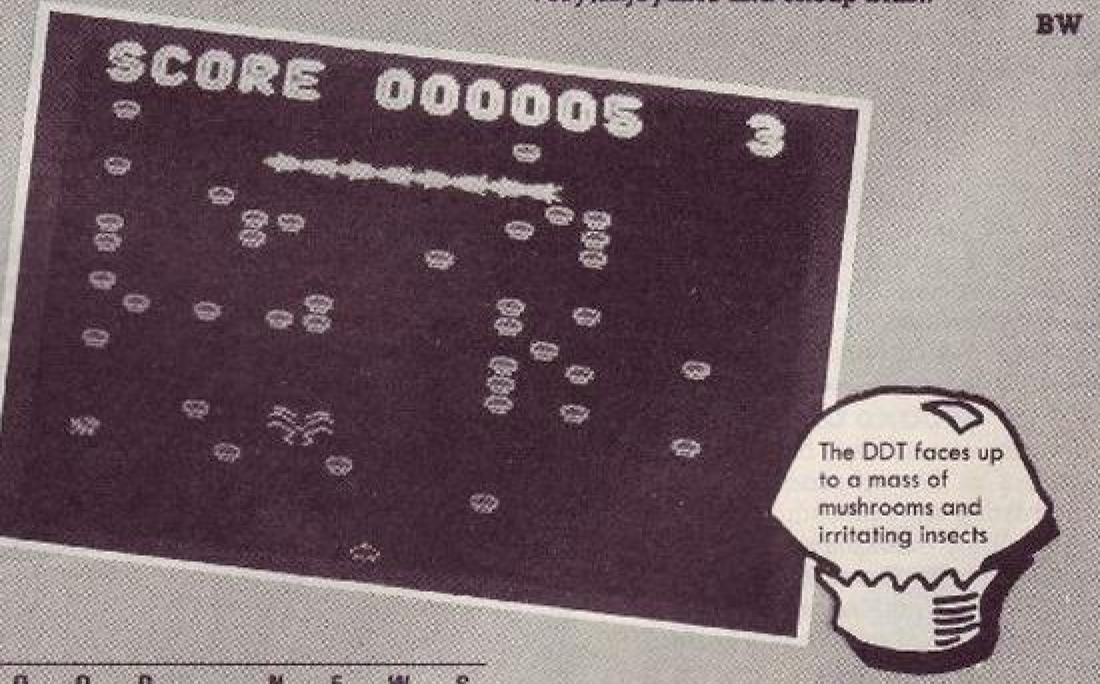
The swarm of enemies include fleas that drop down the screen leaving a trail of mushrooms behind them. This way the screen can quickly become clogged and restrict both movement and the ability to shoot things. Mushrooms can be turned into magic ones by snails that crawl across screen. When a 'pede hits one of these tasty toadstools it comes straight down the screen, unlees interrupted by a quick knife in the head.

Down at the base of the screen the DDT is harassed by spiders and ants. Spiders bounce across screen, looking more like Magnus Pyke with a spiked hair-do, and the ants move straight across, trying to home in on you. A much prettier adversary are the butterflies that flutter by occasionally and can be blasted from the skies for a healthy bonus score.

Last, but not least, is a ghost that appears when a piece of 'pede reaches the bottom of the screen. He can't be shot but disappears when all of the 'pede is destroyed. If you take too long he will advance down the screen and you'll be a dead DDT.

The action is nowhere near as adrenalin pumping as *Wriggler* because it's much slower, but it has a lot going in favour of it. Although slow the action is tough and certainly has plenty of colour. The presentation is also to be commended with some very impressive speech synthesis without the need for hardware, and some very colourful writing. A bit of a war of attrition because of its slow speed but otherwise a very enjoyable and cheap blast.

BW



The DDT faces up to a mass of mushrooms and irritating insects

GOOD NEWS

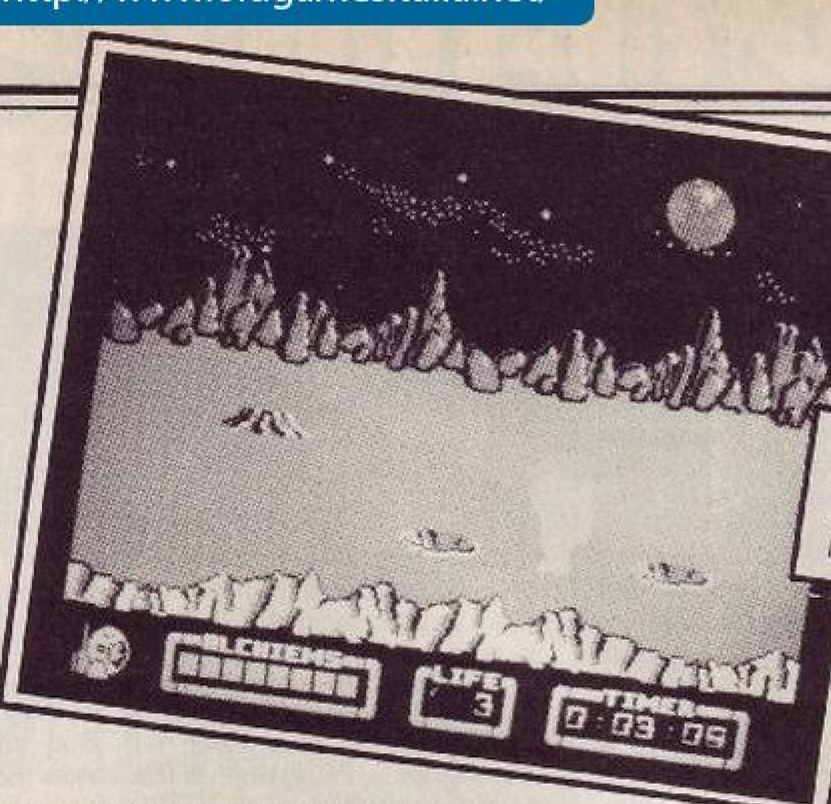
- **Good speech with no extra hardware required.**
- **Lots of different insects to cope with.**
- **Good use of colour.**
- **Gets tough as you are overrun in later stages.**

BAD NEWS

- **Action is slow.**
- **Doesn't get the adrenalin pumping as much as *Wriggler*.**

GREEN SCREEN VIEW
Well-chosen colour combinations mean it's still playable, at least for as many stages as I could get through.
AW

GRAPHICS	58%
SONICS	71%
GRAB FACTOR	55%
STAYING POWER	59%
A A RATING	64%



Bubble headed Charlie on a hunt for alchiems, with a little help from a lunar mole

NODES OF YESOD

Odin/Firebird, ££9.95 cass, joystick or keys

Lunar monoliths are nothing new to anyone who has read or seen *2001: A Space Odyssey* but the problem here is finding one. To do this a little spaceman called Charlie has to collect eight 'alchiems' from the lunar cave system and cope with all the dangers there.

> **SECOND OPINION**
>
> *The mole's great and I'm a sucker for exploration games, so why don't I like Nodes? Well, the truth is it's just a bit too mechanical. Graphically weak and sadly lacking in depth, the only thing to do is explore and collect – and that's not very impressive for a £10 game.*
>
> **AW**

Our bubble-headed hero begins his quest on the moon's surface. There's a craggy mountain range in the background and in the foreground are craters and holes in the ground. Everything is grey (very realistic) and from time to time a mole will pop out of one of the craters, now revealed as molehills (not very realistic). If you jump at the mole, performing a graceful, weightless somersault in the process, he can be caught and put to use later on.

Walking over one of the holes in the ground drops you into the underground cave system where the alchiems are located. The caverns consist of relatively bare flick screens (as opposed to scrolling screens), most of which contain a number of platforms and lunar nasties. Charlie gets around by jumping between platforms, but has to be careful because very long drops can end one of his three lives. Judging some jumps can be quite difficult and you may end up infuriated at having just failed to make a leap and slipping of the edge of a platform.

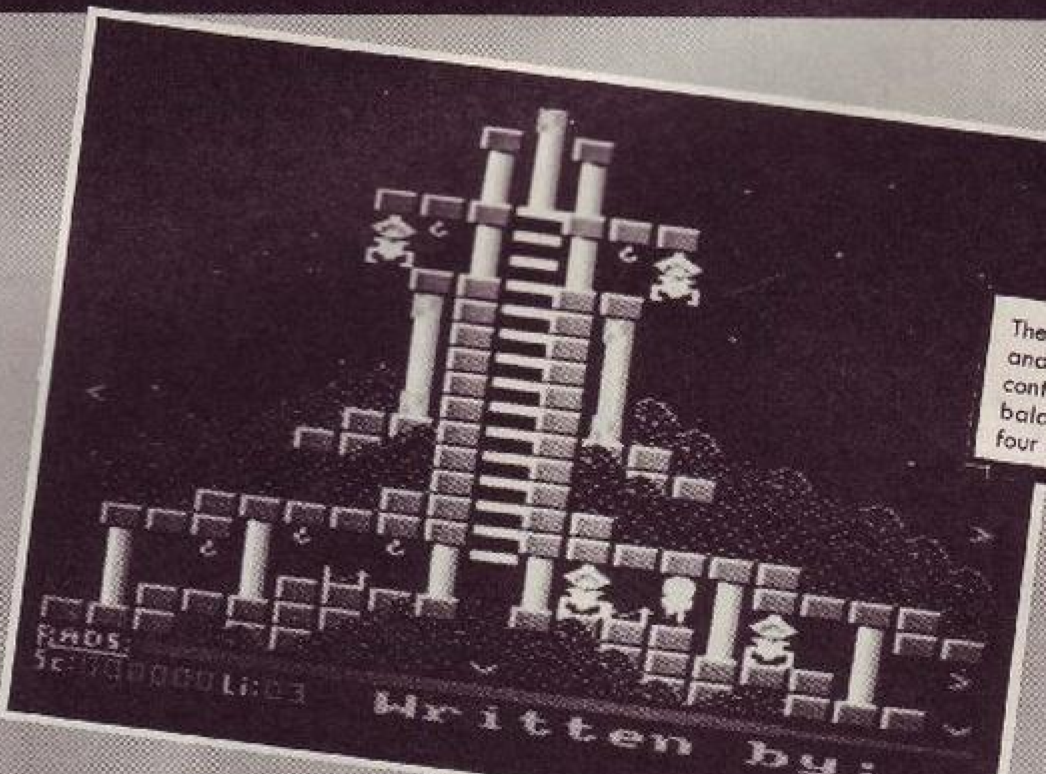
The other way Charlie can die is by coming into contact with the underground aliens. These come in two basic varieties: ones that float around the caves and explode on contact with you, and ones that walk around the bottom of caves and

RAD-ZONE

Mastertronic, £1.99 cass, joystick or keys

Radiation disasters are becoming commonplace it seems, although fortunately this one takes place on a remote planetoid. There's only one human life at risk and you've got one guess who – well someone's got to do it. You've got to clear up the mess: decontaminating affected areas by removing all the radioactive objects.

The game comes from the authors of *The Scout Steps Out* and has the same distinctive graphic style and gameplay. It's an exploration/platform game packed with plenty of small, colourful graphics and some nasty hazards. You control a little balding man who, after having donned an anti-radiation suit, has to venture out into the hostile irradiated environment.



The start screen and safe area containing the balding hero and four radiation suits

> **SECOND OPINION**
>
> *It's quite simple stuff, but I enjoyed the game a lot. The graphics are interesting and colourful, with challenging gameplay and good sound to boot. The safe areas will help you explore, and there's certainly plenty to see. A good game and a great price.*
>
> **AW**

The screens are composed of small, colourful, futuristic graphics including some moving dangers and other features that you have to find out about by trial and error. On each screen are a number of objects that need to be picked up in order to make it a radiation free area. These aren't always the same but include clam shells, seaweed, diamond shapes and discs. Some can only be neutralised when they flash red, making things even tougher.

Once all radioactive objects are collected the screen becomes a safe area. These areas are extremely useful for cleansing your suit of radiation. A gauge at the bottom of the screen shows this building up due to the presence of radioactive items and collisions with certain moving hazards. If it gets too high you first lose the protective suit and then a life. Returning to a safe area removes all radiation, but if you've lost a suit then another one has to be collected from the start screen.

The moving obstacles on some screens are well designed and lethal if you get caught by one at the wrong time. There are rolling rocks, guards with spears, flying saucers and some knives that have a deadly sawing action. One section is particularly tough because it's underwater and has a buoyancy effect the same as in *The Scout Steps Out*.

The screens require different skills to complete but good timing, fast reactions and a bit of luck will all be needed. They are mapped out so that they don't have to be tackled in a particular order but, because of the need to create safe areas, bounce you into the air on contact. These both gradually drain your energy until only a crumpled spacesuit is left as evidence of your existence. The aliens are nicely designed and animated but, like a lot of the cave system, are dull in colour.

The mole that Charlie picked up comes in handy for performing two jobs. He can explode some aliens on contact, but, most important, he can dig holes in walls. You can only find out which walls through trial and error but a seemingly hopeless position or a particular arrangement of platforms may give clues. The holes the mole digs give access to other sections of the game, essential to completing it.

The alchiems are shiny crystals that are tough to find, and not safe even then. Other space suited searchers will appear on some screens and, if they touch Charlie, will explode, taking one of the alchiems with them. These and many other hazards can be dealt with using gravity sticks, which are collected along with an extra life. They remove some aliens and stop the alchiem thieves in their tracks.

The game has some other nice touches, like a tunnel with an updraft which you can float up and down, invisible holes in the floor, and whirlwinds that act like teleports. These may help or hinder, but all make mapping the game as you go a great help.

The graphics are the main disappointment about the game. They may be atmospheric and lunar-like but they're also very dull. The action itself takes a little while to get to grips with, but once you've started exploring properly there's quite a bit to see and do. A nice exploration game but not one that's going to set your mind or joystick alight.

BW

GOOD NEWS

- **▶ Large, atmospheric playing area.**
- **▶ Nicely animated aliens and jumping action.**
- **▶ Good features like the mole and the updraft tunnel.**
- **▶ Tough game task.**

BAD NEWS

- **▶ Use of colour is very disappointing.**
- **▶ Just an exploration game requiring little thought.**
- **▶ Fatal falls can happen much too easily and there's nothing you can do about it.**

GREEN SCREEN VIEW

Some serious problems with green monsters on a green screen – so keep your eyes peeled!

AW

GRAPHICS	60%
SONICS	42%
GRAB FACTOR	60%
STAYING POWER	64%
A A RATING	62%

---

it's best to work on a regular pattern.

The game is very similar to *The Scout Steps Out* but it's £7 cheaper and that makes it much better value. The screens are attractive, well designed and tough enough to keep you exploring for some while. A delightful title tune plays on the start screen and for £2 you can have a lot of fun with this.

BW

GOOD NEWS

- **▶ Small but colourful graphics.**
- **▶ Pleasant title tune.**
- **▶ Nice features like water section and safe areas.**
- **▶ Tough screens and plenty to explore.**

BAD NEWS

- **▶ Very similar to *The Scout Steps Out*.**
- **▶ Movement control, particularly when under attack, can be awkward.**

GREEN SCREEN VIEW

The screens are fine, but those colour-coded radioactive objects can be a real pain. It is possible to tell when they're red, but only just.

AW

GRAPHICS	57%
SONICS	66%
GRAB FACTOR	67%
STAYING POWER	71%
A A RATING	74%

MONOPOLY

Leisure Genius/Virgin, £9.95 cass, £14.95 disc, keys only

Remember the lazy summer days when you'd get out the battered *Monopoly* box, with its little green houses and red hotels (real wooden ones mind), and spend long afternoons trying to make a fortune in pretend money. You don't? Well here's your chance to experience it on your Arnold who will do all the hard work, leaving you to enjoy the game and get a tan.

This computer version faithfully recreates the board game, and allows up to six players to take part, each with their own playing piece. All your old favourites are here: the iron, boat, dog, car, boot and hat. For real authenticity there should have been one missing and a large dent in the boot, but no conversion is perfect after all. Players can take control of all these pieces, or they can be left for the computer to control. It will even play all six in a demo game.

SECOND OPINION

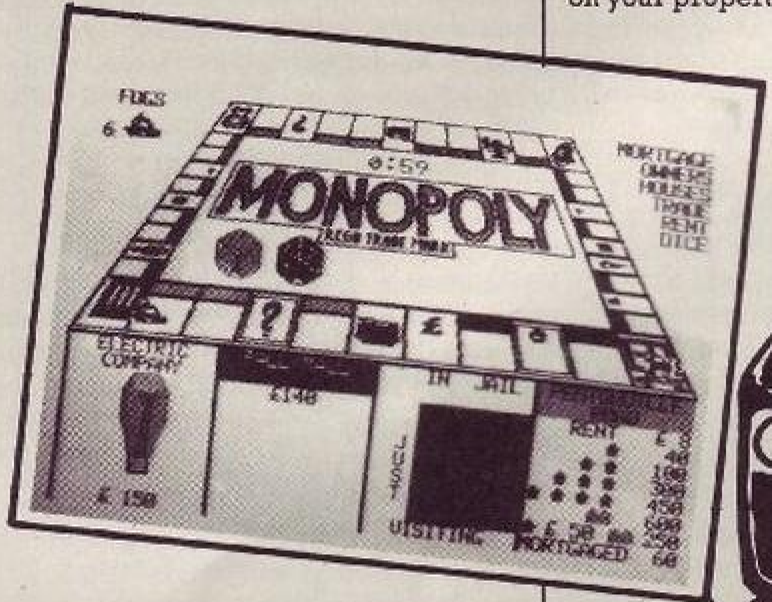
I'm not really too sure what the point of computerised Monopoly is. The computer opponents are all very well, but they're no substitute for human beings. In every other respect the real, cardboard thing is at least as good and a whole lot more fun.

AW

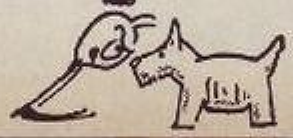
The screen has a picture of the whole board occupying the top of the display, but this lacks detail and merely serves to show the position of the pieces on the board. Below is a window in which most of the action takes place, including close-up pictures of sections of the board.

If you haven't played the board game then full instructions are included with the game, but here's a quick summary of what it's all about. Players travel around a square board made up of a number of colour coded sets of property, and some other special single squares. A site can be bought, and when a player has a full set he can build houses and hotels on the land. If another player lands on one of your sites you can charge him rent. This goes on with players acquiring assets until a set time limit or all but one of the players has been bankrupted.

The computer rolls the dice automatically for each player and moves the piece along the board. The computer will offer you one of several options depending on which square you land on. After completing this the player can also select one of several other actions. He can mortgage or unmortgage properties, buy or sell houses, try to trade properties with another player and claim rent when another player lands on your property.



All that history is here in pixels, from the Old Kent Road to Mayfair



All the special features are included like going to jail, chance and community chest cards, tax spaces and free parking. Because it's a game of chance the computer plays a good game, but obviously it's more fun to play against other people. The graphics are fairly basic but adequate and there's little sound. The game proceeds fairly slowly through some sections and it can become tiresome. A faithful but uninspiring version of the game that only lacks the atmosphere of little painted wooden houses with knots in them, dented metal playing pieces and a box and board worn with use.

BW

GOOD NEWS

- **Faithful conversion of the board game.**
- **Up to six players can play and there's a good computer opponent.**
- **The computer takes care of the calculations, movement and other automatic functions.**

BAD NEWS

- **Graphics and sound aren't used as fully as they could be.**
- **The action is very slow in places.**
- **It will never have the same atmosphere and nostalgia of an ageing board set.**

GREEN SCREEN VIEW

Everything's visible, but the real-life board is a lot more colourful.

AW

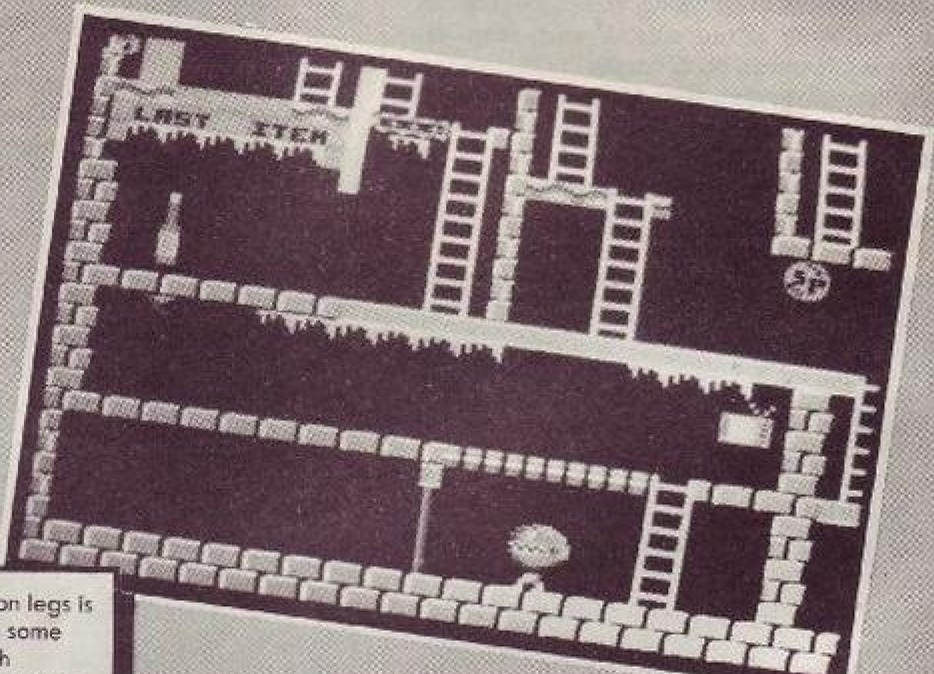
GRAPHICS	42%
SONICS	18%
GRAB FACTOR	52%
STAYING POWER	63%
A A RATING	57%

TROLLIE WALLIE

Players, £1.99 cass, joystick or keys

You won't find many games set in a supermarket, and fortunately our local shopping precinct doesn't have anywhere as deadly as the aisles that Wallie has to cope with. This supermarket takes the form of a large scrolling platform maze containing 40 items that need to be collected and paid for.

Wallie himself looks like a large tomato on two bright blue legs, and when he jumps he flies through the air in a graceful arc but with a complete lack of animation. His dental work is much more impressive consisting of large, toothed jaws that chomp up and down as he walks, just like *Pacman*. Wallie has to find the 40 shopping items and take them to the checkout desk five at a time.



A tomato on legs is faced with some nightmarish grocery shopping

SECOND OPINION

Quite colourful in a tacky sort of way, but there's nothing very exciting about this budget trundle-'em-up. There's plenty to explore alright, but nothing to do except jump around and pick things up. Still, it's the closest we're ever going to get to a supermarket here in Somerton.

AW

The first problem is to find the checkout desk, but once you've located that there's a lot of tough shopping to do. As Wallie moves around the shop the screen scrolls when he gets near the edge to reveal more of the maze. The same happens when he goes up or down ladders to get between the shops different floors.

Wallie doesn't have to cope with old ladies pushing squeaky trolleys and acting like they're in a demolition derby, but he does have to deal with a mass of dangers. The main danger is fatal falls, which can happen all too easily due to the disappearing floors, conveyor belts and long jumps that have to be negotiated. Any one of these could dump him into a drop that costs a life.

Dangers come in many forms, some static and others moving. Fungus on the floors and ceilings are a constant hazard (don't shop here for food!), while somebody seems to have activated laser security systems and some nasty sliding doors before locking up time. Wallie can be stopped in his tracks by any of them and sent back to his starting position, minus another life.

The shop is also patrolled by some vicious monsters that probably mutated from the rotting meat freezer. They move along in patterns on some floors, bringing yet more death if touched. Most of these obstacles can be avoided by carefully timed walks and jumps, but some can be very difficult to get past and will need practice.

Less lethal obstacles present themselves in the form of walls that have to be removed by flicking a switch, or conveyor belts that run the wrong way and have to be jumped along. Exploration is essential, and until you're familiar with the layout of this manic market you'll need to be very careful when scrolling at the edge of the screen.

The graphics are passable but suffer from some nasty colour clashes when Wallie passes through ladders and other areas. There's some excellent title music of a Jean-Michel Jarre track, but the in-game sound effects are simple. The game is rather old in concept but still presents a tough challenge to platform game fans.

BW

GOOD NEWS

- **Large scrolling playing area.**
- **Good array of obstacles and dangers.**
- **Very tough trying to get all of the shopping.**

BAD NEWS

- **Nasty colour clashes when objects overlap.**
- **It's an old game with old gameplay.**
- **Collision detection isn't good, particularly for vertically sliding doors.**

GREEN SCREEN VIEW

Everything's visible, but colour was one of the game's better features.

AW

GRAPHICS	52%
SONICS	68%
GRAB FACTOR	50%
STAYING POWER	64%
A A RATING	66%

OUR SOFTWARE WAS MADE FOR IT.

Without doubt, the Amstrad range of computers is rapidly establishing itself at the forefront of the personal micro industry.

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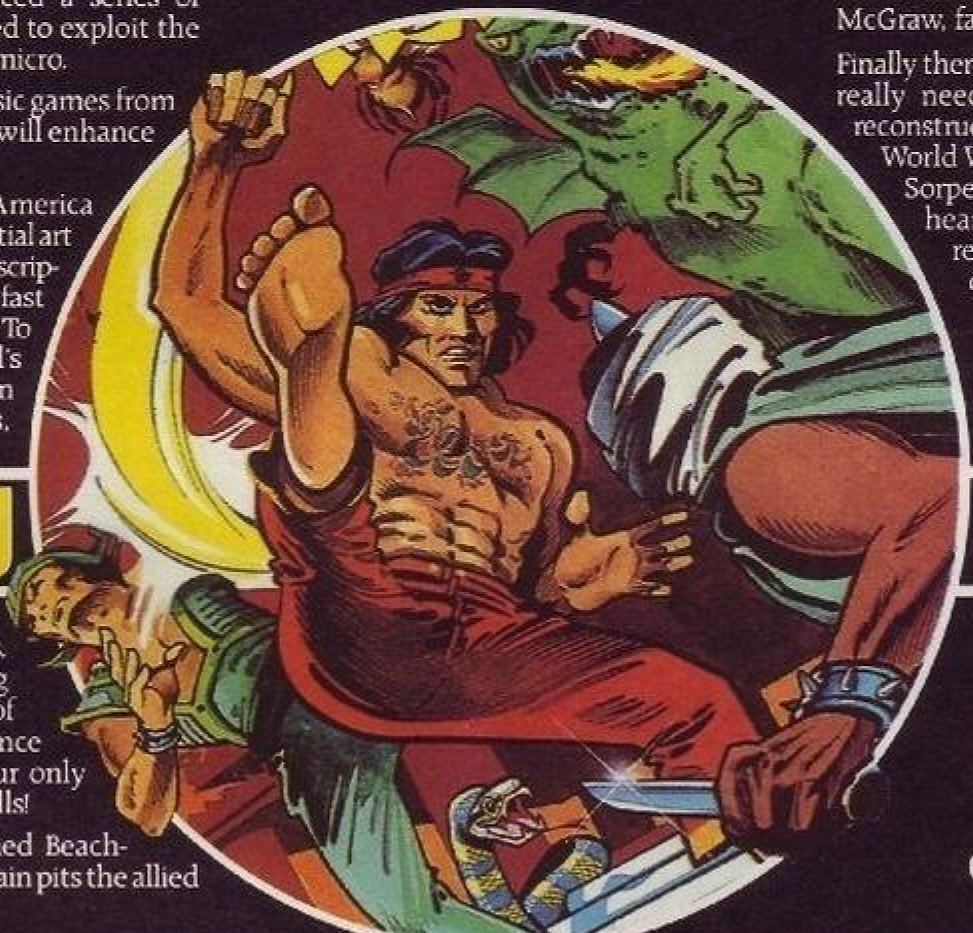
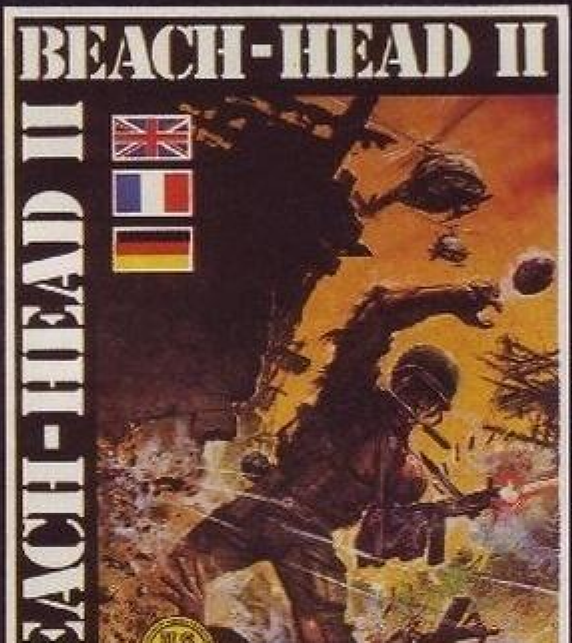
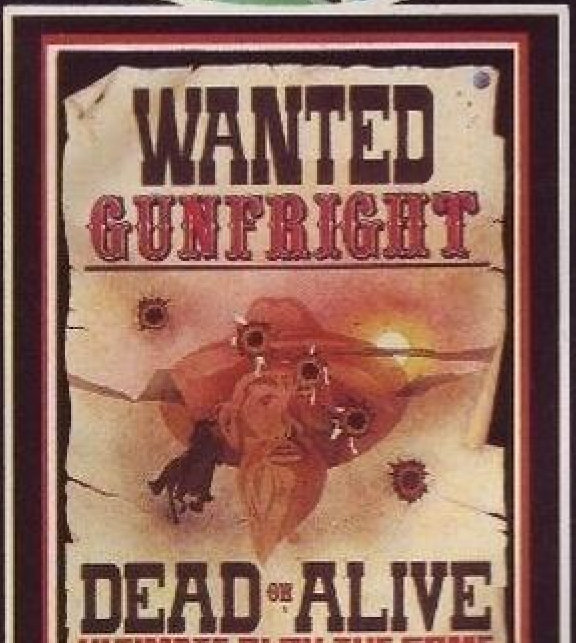


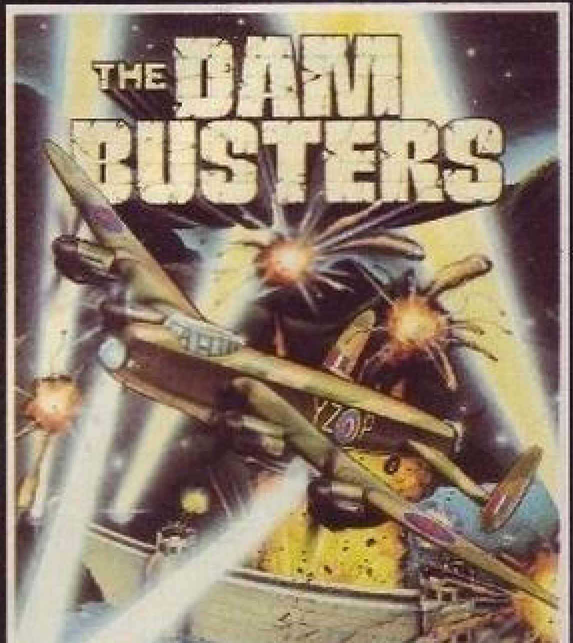
KUNG-FU MASTER

AMSTRAD

DISK £14.95
CASSETTE £9.95







U.S. GOLD ULTIMATE PLAY THE GAME Selected U.S. Gold & Ultimate Play The Game product is available from selected branches of: Boots John Menzies WHSMITH

MASTERGAME

HEAVY ON THE MAGICK

Gargoyle, £9.95 cass, £13.95 disc, keys only

Ever since computer games first flashed onto a screen or tapped onto a teletype, aspiring programmers have dreamt of the 'interactive movie'. Now, laser disc games apart, Gargoyle have come up with what must be one of the best attempts so far to realise that dream.

Heavy on the Magick gives you a horizontal window display of your location, including the character you control, together with three information panels at the bottom of the screen. The first of these gives information on your inventory, magickal status, and immediate location; the second echoes keyboard entry and displays the program's replies; the third keeps an eye on your stamina, skill, and luck.

And luck you're going to need, my fellow Pilgs, because this is a very tough game indeed. Axil the Able, whose life depends on your keyboard entries, has been confined to the dungeons beneath Collodon's Pile by Master Therion the Wizard. Somewhere in this multi-level nightmare are three exits which Axil must find with the aid of his wits and a spell-book.

At the start of the game you are allocated values for Stamina, Skill, and Luck. A typical initial allocation would be about 34, 12, and 3 respectively, and if you don't fancy this you can swap the values around, giving for example 12 for Stamina, 34 for Skill, and 3 for Luck. As a general rule, however, the beginner will probably want as much Stamina as he can muster.

ANIMATED ADVENTURE

Once you've left the initial set-up screen you find yourself in a room with two tables, one of which bears a magickal Grimoire (spell-book to you and me), the other bears a message of a more fatal nature - touch it and you die horribly. This is typical of the puzzles in the earlier part of the game where, for the most part, providing you examine things carefully before handling them, you shouldn't have too much trouble - unless you happen to die in battle.

Part of the reason for this is that the number of available options are not that great. The program depends on keyboard entry, but restricts you to an unusual two-word structure which takes the format KEYWORD OBJECT. There are in fact only six basic keywords, each of which is entered using a single key-press. These are **Z**, which toggles the information display in one of the panels between inventory, magick, exits, and location details; **O**, which returns you to the Options screen (to save a game for example); **X**, for eXamine; **P** for Pick up; and **D** for Drop.

In addition to the above you've got movement in eight directions and, at the start of the game, three spells. The spells are your only lifeline when you set out, and they give you the power to Invoke a demon, or blast/freeze an opponent. Even though the use of words is limited it's claimed that the program understands 400.

SECOND OPINION

Gargoyle really have managed to achieve something special here by combining their proven graphic abilities with a testing adventure. Adventurers will be happy with the level of puzzle solving and character interaction, while arcade gamers will appreciate the speed with which the game can be played and the atmospheric screen animation. There's only one word to describe this game – magick.

BW

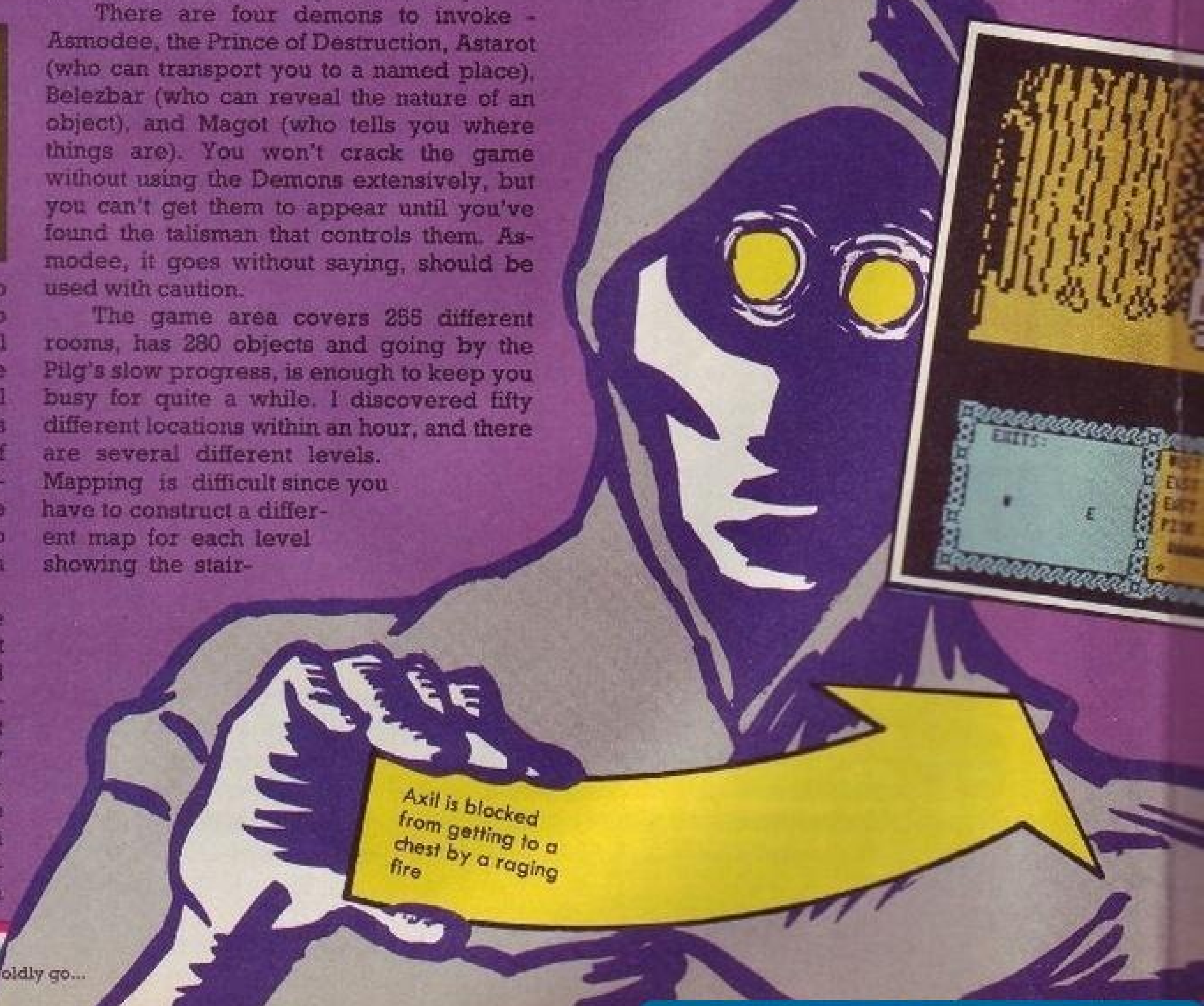
Further on in the game, however, the puzzles become somewhat tougher to crack. Many of them depend on wordplay or the correct use of objects found, and you'll find yourself having to listen very carefully to Apex if you're to rise up through the ranks of magickal mastery.

There are four demons to invoke - Asmodee, the Prince of Destruction, Astarot (who can transport you to a named place), Belezbar (who can reveal the nature of an object), and Magot (who tells you where things are). You won't crack the game without using the Demons extensively, but you can't get them to appear until you've found the talisman that controls them. Asmodee, it goes without saying, should be used with caution.

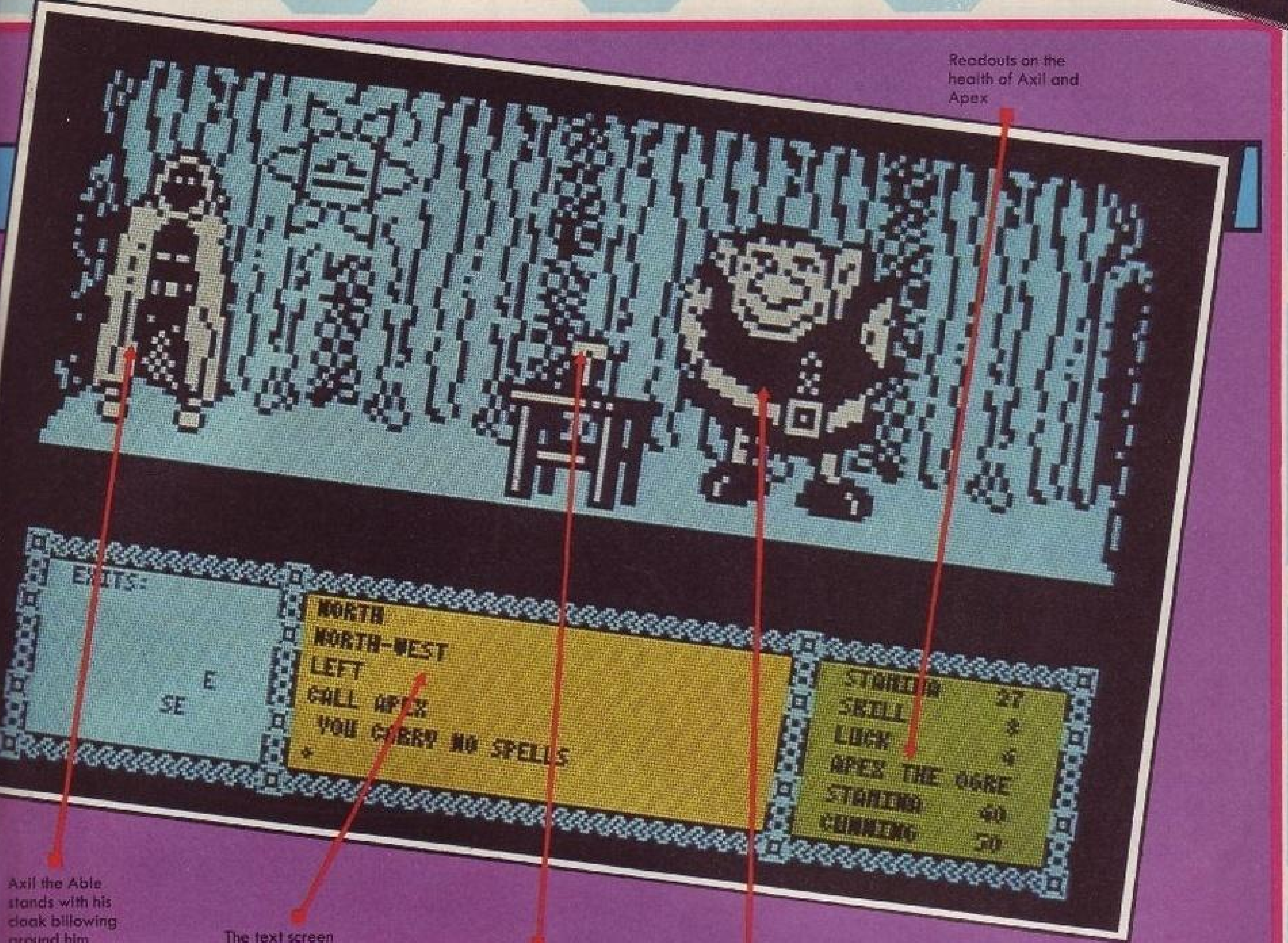
The game area covers 255 different rooms, has 280 objects and going by the Pilg's slow progress, is enough to keep you busy for quite a while. I discovered fifty different locations within an hour, and there are several different levels. Mapping is difficult since you have to construct a different map for each level showing the stairways that connect them. Most of the initial puzzles involve the opening of doors, which will respond either to passwords or the presence of particular objects. To help you here, there's an ogre called Apex who will appear occasionally and answer your questions.

In fact any object or character can be communicated with, using the structure "CHARACTER, OBJECT. For example, "APEX, TABLE may elicit the helpful response IT'S A TABLE, or possibly something a little more revealing. As a general rule, however, the best form of communication is blasting. On your travels you will communicate thus with countless trolls, wyverns, goblins, vampires and other unpleasant characters, many of whom are likely to send you to an early grave if you don't either blast fast or run faster.

Every command you enter will result in some action on screen, even if Axil only shrugs his shoulders in incomprehension. Most actions drain your energy by a point or two, and some increase it. Once your energy reaches zero you're dead, but happily you will find that saving games at the end of each session will enable you to retain your experience rating for future endeavours. This is important because experience governs your performance and increases the number of spells available to you.



Axil is blocked from getting to a chest by a raging fire



EXITS:

E

SE

NORTH

NORTH-WEST

LEFT

CALL APEX

YOU CARRY NO SPELLS

>

STAMINA 27

SKILL 8

LUCK 4

APEX THE OGRE

STAMINA 40

CUNNING 50

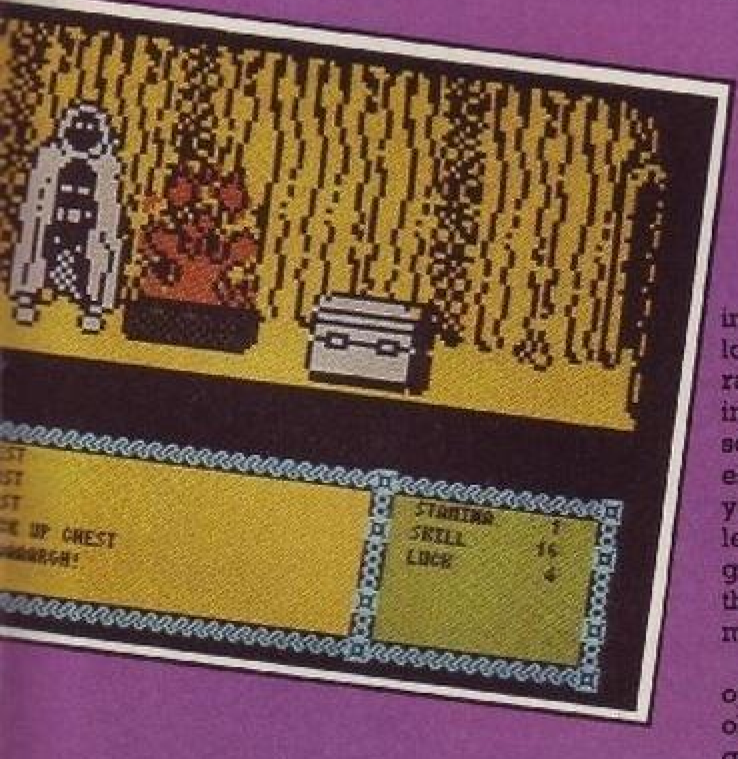
Readouts on the health of Axil and Apex

Axil the Able stands with his cloak billowing around him

The text screen where you communicate with the game

A key on a table that will come in handy for opening a door

Apex the Ogre can be very helpful if you ask him the right things



EST

ST

ST

K UP CHEST

ARRGH!

STAMINA 7

SKILL 16

LUCK 4

In fact, to locate all three possible exits in the game you will have to rise from the lowly position of Neophyte to the exalted rank of 4th Grade Philosphus. This will involve a fair bit of gameplay and puzzle-solving, and certain demons whose aid is essential but who cannot be invoked until you have reached the requisite experience level. Gargoyle have intimated that future games will provide further challenges and the opportunity to rise yet higher in the magickal social circle.

It's a pity that there aren't more text options available, and that some of the objects are a little hard to pick out on a green screen. But, these minor niggles apart, this has to be one of the best options yet for anyone interested in a spot of derring-do down in the dungeons, combined with plenty of puzzles, pleasing graphics, and animation into the bargain.

PILG

GREEN SCREEN VIEW

Still playable, but some of the objects are a little hard to identify

AW

GOOD NEWS

- **Excellent graphic display and animation.**
- **Plenty of locations, objects and characters.**
- **Lots of puzzles.**
- **Closest thing yet to an interactive movie.**
- **Single key press entry speeds the game up considerably.**
- **A really tough game to crack.**
- **Will appeal to both adventure and arcade players alike.**

BAD NEWS

- **Text entry is limited.**

GRAPHICS	89%
SONICS	41%
GRAB FACTOR	86%
STAYING POWER	95%
A A RATING	92%

THE ADVENTURES OF BOND...BASILDON BOND

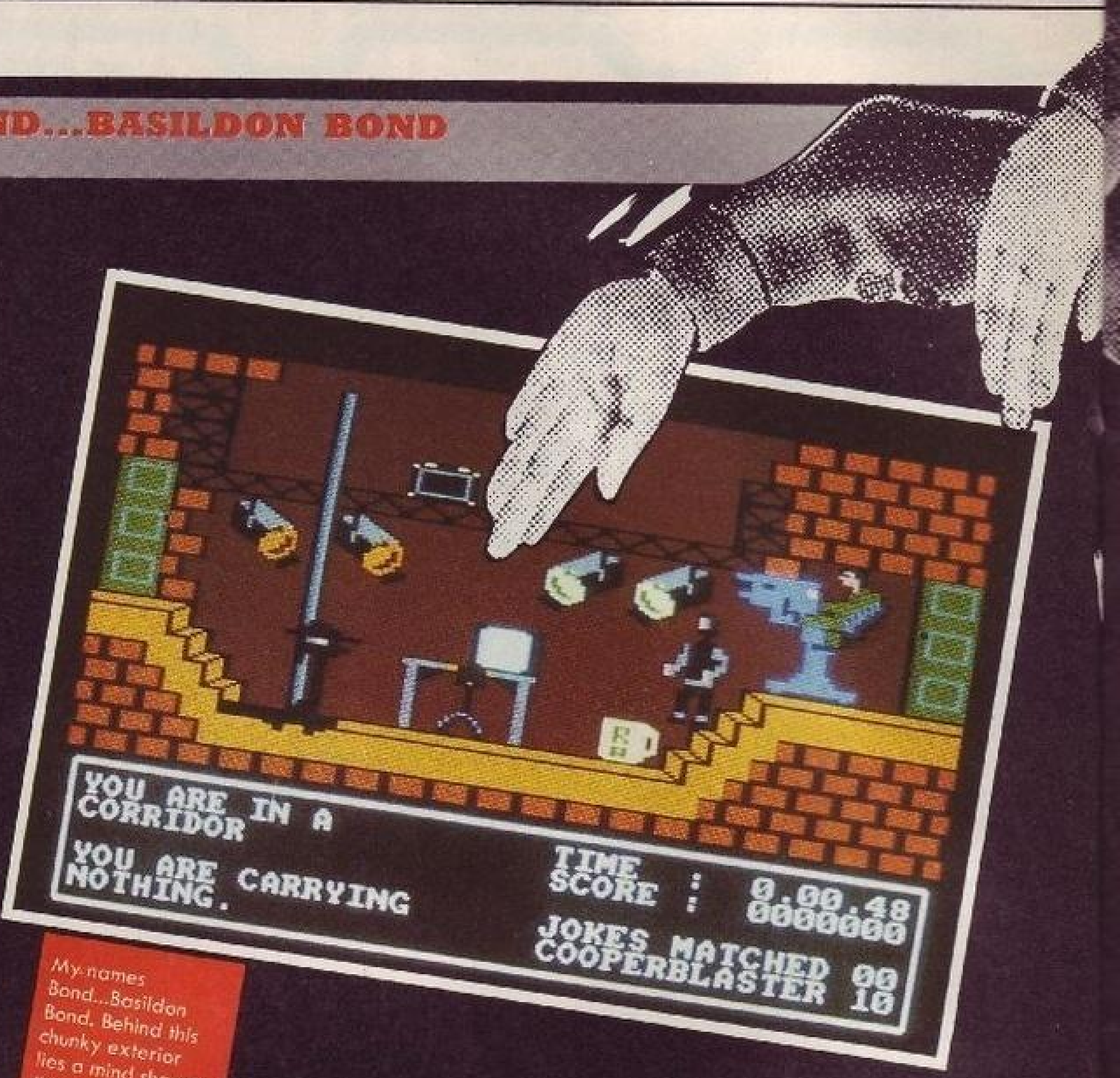
Probe Software, £7.95 cass, joystick only

Basildon Bond is the creation of comedian Russ Abbott and, along with some other of Russ's characters, he is the star of this exploration and joke solving game. The aim is to rescue Russ from a rival comedy act by putting together some of the oldest jokes known to man.

The action takes place in the TV studios, where jokes and answers are to be found by searching the various bits of equipment and furniture. You control Bond as he runs around the 2D rooms that make up the studios, and although the character is rather chunky he is animated quite nicely. The rooms are colourful, but again tend to be on the blocky side.

There are many objects to be found lying around the studios such as video tapes, TV remote controls, earphones and electric kettles, most of which are used for searching furniture. To search a piece of furniture Bond needs a specific object. Which particular object searches which bit of furniture has to be discovered by trial and error. The combination stays the same throughout a game but, changes for each new game.

To get between rooms Bond merely has to run into a door which will creak open and take him to the next room. Some rooms have different levels of platforms to explore and these are connected either by stairways or boom cameras that can be moved up and down like lifts. The playing area is quite large and a fair bit of explor-



```
YOU ARE IN A
CORRIDOR

YOU ARE CARRYING          TIME  :  0.00.48
NOTHING.                  SCORE :  0000000

                          JOKES MATCHED 00
                          COOPERBLASTER 10
```

My names Bond...Basildon Bond. Behind this chunky exterior lies a mind sharper than a brick

GUN FRIGHT

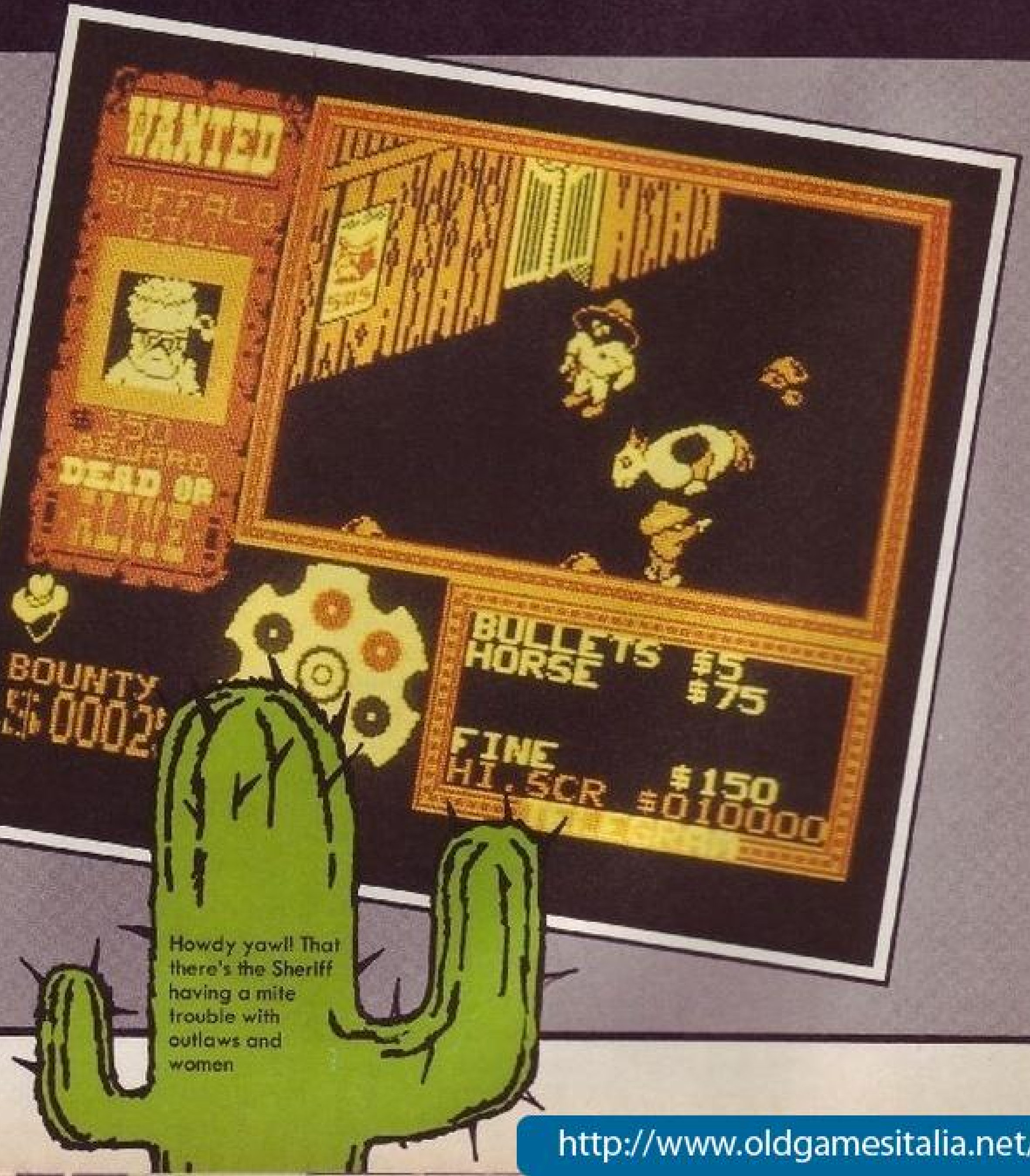
Ultimate/US Gold, £9.95 cass, £14.95 disc, joystick or keys

When Ultimate brought out *Alien 8* many people cried rip-off because of its similarity to *Knight Lore*. Now they are set to face the same problem with this wild west romp, as it looks like *Nightshade* – and this time the game doesn't come out smelling of roses.

The game is set in a wild west town where you, as the Sheriff, have to hunt down and kill outlaws for the bounty. The town is shown in the same 3D perspective as *Nightshade* and *Knight Lore*, with building fronts disappearing as the Sheriff walks behind them, so that you can see where you're going. Buildings can be entered through open doors, but there's nothing of interest inside unless one of the other game characters is already in there.

The town is populated by an extremely annoying and stupid group of people who seem intent on stopping the Sheriff doing his job. There are lots of women who wander aimlessly around and, when they bump into you, kill you. This doesn't seem like civilized behaviour to me, but is as nothing to the fact that bumping into small children and cacti also knocks off a life. You can of course shoot these innocent bystanders down when they get in your way but you'll be fined for it, reducing your bounty.

The outlaws appear one at a time and before you can get into a gunfight you'll have to find them. This can be done by just wandering around the town, but the children will help guide you to them – they



Howdy yawl! That there's the Sheriff having a mite trouble with outlaws and women

ation and mapping is required.

Many rooms have killer cameras that patrol up and down the floor and platforms, and these are Bond's main dangers. If he runs into them he's sent back to the start room and loses ten minutes off the five hour time limit. They can be stopped in two ways: either by having a magnet in the same room which freezes them, or by using a Cooperblaster.

Cooperblasters are limited in supply but cause either Cooperman or Blunderwoman to appear on screen. One of them bounces diagonally around the screen, killing any cameras it comes into contact with, and the other moves straight across the screen while you move it up or down, trying to hit a camera.

Once you find part of a joke it has to be taken back to the start room and logged into a computer before 'the face' appears and gets you, removing the joke back to its starting position. Once logged, the jokes and answers have to be matched up to provide the jokes in all their ageing glory, and believe me they are older than Max Bygrave's.

SECOND OPINION

Plenty of rooms to explore, and they're all as ugly as anything. If you can put up with all that horrible chunkiness though, you have a large and difficult game. The gameplay's a bit repetitive and the jokes are ancient, but it is the only game around that features Blunderwoman – and that's got to be worth something.

AW

The graphics are distinctive and colourful, but chunky so that the rooms often have a garish look to them. The gameplay isn't particularly addictive but does present a tough challenge as you try to link up objects and furniture. At first it seems very unimpressive but the tactics of exploring, avoiding cameras and finding jokes grow on you to make a reasonably enjoyable game.

BW

GREEN SCREEN VIEW

Those awful graphics are even worse in mono, but you can still see everything.

AW

GOOD NEWS

- **Large playing area to explore.**
- **Many objects and pieces of furniture to find and search.**
- **A tough game task with plenty to overcome.**

BAD NEWS

- **Graphics are chunky and garish.**
- **Little depth to the gameplay, it's just running around swapping objects and searching.**

GRAPHICS	61%
SONICS	44%
GRAB FACTOR	57%
STAYING POWER	68%
A A RATING	63%

---

bounce up and down on the spot pointing in the direction of the target, turning to face him if he moves around.

Once you've located the bad guy you need to shoot him once to get onto the gunfight screen. Here the man appears in 2D on the screen, and as soon as he draws his gun you have to move a cursor onto him and let him have it, otherwise he'll riddle you with bullets. Draw too early and you'll be branded a cheat, ending up with yet more holes in you.

SECOND OPINION

This one's not just derivative – it's also rather dull. There's a large town you can explore should you want to, but it all looks the same, so why bother? As for action, those women will drive you up the wall but dodging them is hardly addictive. The horses are funny at first, and the town looks good – but once that wears off, there isn't much left.

AW

Once you have disposed of one killer you have to track down another with a higher bounty on his head, and of course a quicker draw. The appearance of the killers changes but isn't always appropriate, I mean Ma Baker in the wild west and with five o'clock shadow?

Apart from the children the only other help you get are from horses which can be 'ridden' if you want to move faster. They don't last for very long, but while they do you can trample women and children under foot – most gratifying. Bullets and horses both cost money though so you won't want to use too many of either.

At the start of the game and after every few outlaws there is a bonus screen where you can practice shooting bags of gold. This should prepare you for the fight screens and helps the bank balance. Another thing that appears if you shoot enough men are balls of tumbleweed that blow around the screen, making your progress more dangerous.

The graphics and action are far too close to *Nightshade* for comfort, and although the game is more interesting than its predecessor it loses a lot because of its lack of originality. If you've got *Nightshade* this probably isn't worth getting but if you're fresh to Ultimate's games then it should impress. The action is quite compulsive and the game has a good sense of humour, but those women-folk are tremendously annoying as they behave more like outlaws in drag than law abiding citizens – I say waste 'em with a hail of leaden death.

BW

GREEN SCREEN VIEW

Colour isn't a strong point of this game so it plays fine in green – but the original yellow was a bit more atmospheric.

AW

GOOD NEWS

- **Ultimate's usual excellent graphics.**
- **Great sense of humour to the action.**
- **Compulsive and tough game task.**
- **Nice additional screens for shoot outs.**

BAD NEWS

- **Main gameplay is just like *Nightshade*.**
- **Little depth to the action, you keep doing the same thing.**

GRAPHICS	86%
SONICS	74%
GRAB FACTOR	80%
STAYING POWER	70%
A A RATING	73%

THE DAMBUSTERS

US Gold/Sydney, £9.95 cass, £14.95 disc, joystick or keys

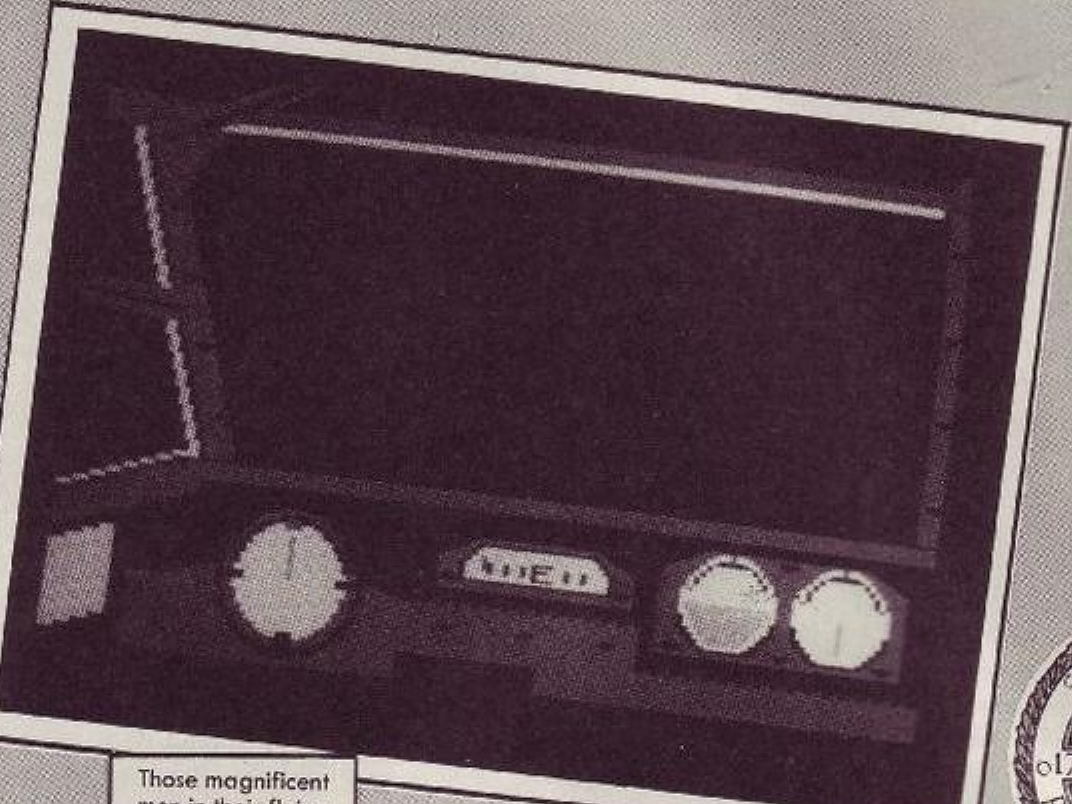
Your task is to recreate one of the most famous air raids of the Second World War, in which Lancaster bombers from 617 squadron destroyed dams and flooded the Ruhr valley, part of Germany's industrial heartland. The original mission succeeded but you have the opportunity to try it for yourself – maybe you'll miss.

There are three levels to choose from that start you at different points in the mission. The first just gives you the approach to the dam, the second puts you over the English channel with the whole of Europe to cross, and the third puts you on the ground at Scampton airfield in north-east England. These are succesively harder to complete because of the jobs you have to perform and the defences you face.

SECOND OPINION

It's all a pretty silly idea giving you seven people's jobs, but it's the only thing that gives the game any staying power. Graphically unexciting and sonically appalling, this is a real solve-and-forget job.

AW



Those magnificent men in their flying machine view the night sky over Germany

On all the missions you do the jobs of the seven crew members of a single Lancaster bomber. It only carries one bomb so that you can only destroy one dam, and the game ends after it is dropped whether you succeed or not. There are three basic problems that have to be overcome in order to complete the mission: learning to fly the plane, avoiding the German defences and dropping the bomb on target. To achieve these you need to perform all seven jobs with speed and accuracy.

The pilot screen shows a view through the cockpit and the instruments, indicating height, direction, horizon and speed. From here you have to fly the plane using the joystick and set the correct course for approaching the dam. This ties up much of the time with the two engineer screens (one in the two shortened missions). On the first screen you control the engines with throttles and boosters to set the speed, and fire extinguishers if an engine is set on fire. The second screen is needed for take-offs and controls the rudder, flaps, landing gear and fuel indicators.

The navigator's screen consists of maps showing the territory over which the plane is passing. These include details on population, military and industrial centres, airports, radar stations and the dams. This should warn you of the type and weight of opposition you'll face flying over different areas.

The front and tail gunner screens are the Lancaster's means of defence against the three enemy threats. These are night fighters, barrage balloons and searchlights, all of which can be shot. Night fighters can damage the plane, barrage balloons can cause you to crash if you fly into them, while searchlights can home the flak in on the plane. None of them are very difficult to shoot but can catch you unawares when you're concentrating on other screens.

The bomb aimer screen is where you ready the bomb for dropping. To successfully destroy the dam the plane has to be travelling at the right speed, height and direction, and the bomb has to be released at the correct moment. The screens are all quite nicely designed but the actual flying graphics aren't very impressive. The engine and machine gun noises are also weak, leaving a lot depending on the gameplay.

It's quite difficult to complete the whole mission and you'll need a fair bit of pract-

NUCLEAR HEIST

Players, £1.99 cass, joystick or keys

You've seen plenty of left-right shoot-em-ups, well this is an up-down one from Interceptor's new label. It comprises two sections that go together to make one unoriginal, infuriating, awful game.

You control a helicopter that flies at the left hand side of the screen and can be moved up and down. It fires laser bolts very rapidly in a stream of deadly death towards the right hand side of the screen. From the right appear alien craft who try to make it to the left of the display, and have to be stopped to prevent you losing a life.

The aliens don't just move towards you, they fire at the chopper as well, destroying it if it's hit. The alien fire can be quite concentrated, and up to four of them can be on screen at once. When they get about half way across they stop firing and a last minute intervention by the helicopter can prevent disaster.

When enough aliens have been destroyed you move to the second stage of the action which involves very fast reactions. The helicopter goes into hyperwarp, which means a whole bunch of white dots whizz across the screen towards it very fast indeed. All you have to do is avoid the dots for a little while. Even if you're ready for the start of this section the helicopter may hit a dot before you've had a chance to move, and one wrong twitch will spell disaster.

If you survive the hyperwarp you're on to another alien blasting section, but with a different breed of alien and a lot more of them to kill before you can move on again.

The waves are quite difficult to survive, but consist of mindless and repetitive action. Their most annoying feature is that wherever you die the chopper is always returned to the start of a level with all the aliens still to be shot and the hyperwarp to survive. This combination makes the whole thing immensely frustrating and guaranteed to have you breaking up the furniture after just a few minutes *(you should see the state of the office after Bob played this one! – Ed).*

SECOND OPINION

Now this is what I call bad. There's a thin line between clever and stupid, but Nuclear Heist isn't even close. It's just like those slalom games of old, with a bit of shooting thrown in. You hold the fire button down, you dodge the bullets, you dodge the things in 'hyperwarp' that look exactly like bullets, you wonder why you bothered.

AW

The game sound effects are quite jolly

ice, but once you've done it there seems little reason to come back to the game. While playing you are constantly busy trying to do seven jobs, and this is probably the games strong point. The dam approach will take a few runs to master, but a succesful attack will probably be greeted with disappointment because, although you get a picture of the dam, it doesn't explode, collapse or breach at all, it just tells you that the bomb hit.

On the whole I found this rather disappointing. It's gets a fair amount of atmosphere from the presentation of both the instructions and the screens; but the game itself needs polishing around the edges. It certainly can't be called a flight simulator, but until you succeed in completing the full mission it may provide some hours of challenge.

BW

GREEN SCREEN VIEW

The water's almost invisible, but you don't really need to see it anyway.

AW

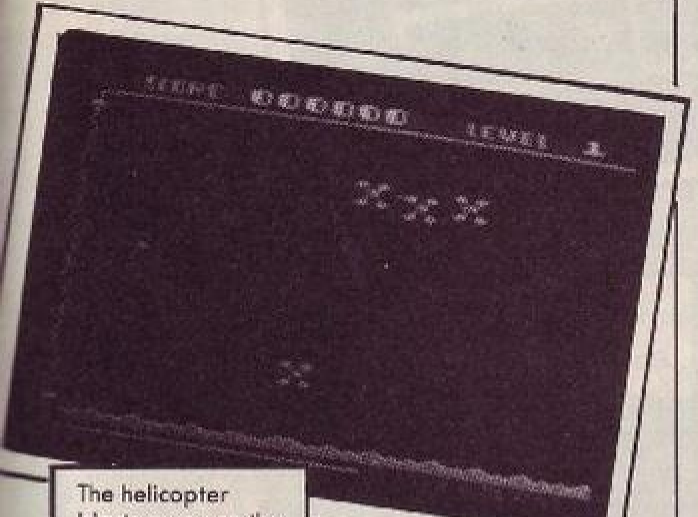
GOOD NEWS

▶ **Plenty to do throughout the game.**
▶ **Nicely presented instructions and screens.**
▶ **Completing the full mission is a fair challenge.**

BAD NEWS

▶ **Rotten sound effects.**
▶ **Disappointing ending.**
▶ **Once cracked you probably won't want to play again.**

GRAPHICS	51%
SONICS	22%
GRAB FACTOR	66%
STAYING POWER	57%
A A RATING	61%



The helicopter blasts away on the left at the aliens on the right – can you stay awake?

but the graphics are very simple and suffer from flicker. Even as a budget title this isn't very impressive because it's a very old idea with diabolical gameplay.

BW

GREEN SCREEN VIEW

Everythings visible – more's the pity.

AW

GOOD NEWS

▶ **Doesn't disable the reset keys.**

BAD NEWS

▶ **Very old game idea.**
▶ **Mindless repetitive gameplay.**
▶ **Only two stages.**
▶ **Simple, flickery graphics.**
▶ **Infuriatingly easy to get killed when there's nothing you can do about it.**

GRAPHICS	38%
SONICS	51%
GRAB FACTOR	25%
STAYING POWER	14%
A A RATING	19%

VOODOO RAGE

Antartic, £1.99 cass, joystick or keys

Despite the imaginative title this is in fact just another platform game, the most noticeable feature of which is the appalling scenario that sounds more like something out of a Bernard Manning 'comedy' routine. Basically it's about a wife trying to stop hubbie playing computer games; a sexist scenario and a simple, old game combined to make one bad package.

There are 20 screens to get through in sequence, and on each one you have to perform the familiar task of picking up all the objects on screen while avoiding the mutant creatures trying to stop you. The platforms on which all this takes place look different on each screen but behave in exactly the same way. Your character can walk on them, or freely jump through them to get up the screen.

SECOND OPINION

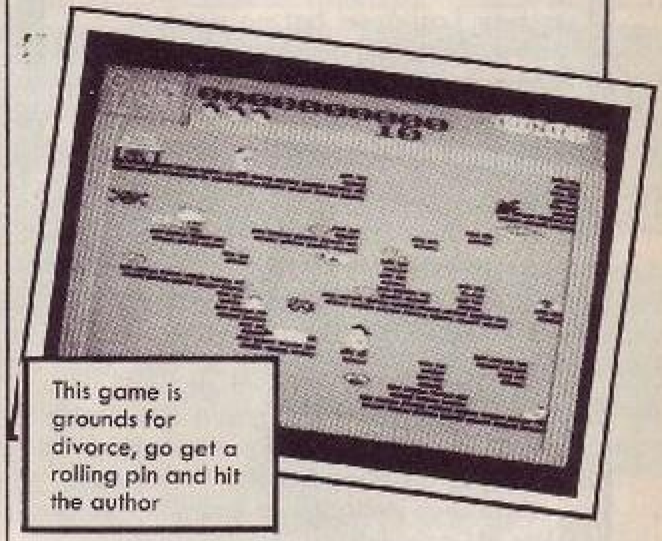
Platform games are tired enough if they're done well, but this one puts 'em to sleep for good. The scenario would insult the intelligence of a slug, and the gameplay isn't much better – rotten collision detection, an unoriginal task and boring screen layouts make for nothing but tedium. A great title tacked onto a miserable game.

AW

The husband appears on a platform which also contains a video game console of some sort. He wanders randomly to and fro on the platform, and while he's doing that you can't touch him. However if he starts playing at the console and you've picked up a rolling pin you can go and beat him up for bonus points. He doesn't go to the console very often – I wonder which game he's supposed to be playing?

The screens are quite simple in design: you have to avoid all the creatures that move, and collect anything that doesn't. Contact with a monster, or a long fall, claims one of your three lives, but most problems can be solved by throwing a 'voodoo rage'. The instructions tell us that this is 'like having 30 mothers who all lose their tempers at the same time', and if they've seen this game I'm not in the least bit surprised.

A rage will last for ten seconds and during that time the creatures are frozen and can be touched without harm. You only have ten of these rages to use but they make the job considerably easier while in operation. Even with a rage on you are still susceptible to long falls and death from hitting the bottom of the screen.



This game is grounds for divorce, go get a rolling pin and hit the author

The creatures and objects are quite nicely drawn, but they are very small and the rest of the screens are uninteresting. The sound effects are also simple, but the game's big problems are that it is totally unoriginal, the gameplay is simple, and the scenario awful. Cheap game, cheap jokes and not a lot of lasting interest.

BW

GREEN SCREEN VIEW

The second screen is pretty hard to see, but that can only be an improvement.

AW

GOOD NEWS

▶ **Getting through 20 screens will be tough.**
▶ **The 'rage' and husband beating add some originality.**

BAD NEWS

▶ **Old game idea, badly implemented.**
▶ **Awful scenario.**
▶ **Collision and jump detection aren't good.**
▶ **Screens aren't very inventive in their design.**

GRAPHICS	43%
SONICS	43%
GRAB FACTOR	32%
STAYING POWER	36%
A A RATING	35%

SPIKY HAROLD

Firebird, £1.99 cass, joystick or keys

Yet more cute characters from Firebird; this time the hero being a hedgehog called Harold, trying to cope with the hazards of a very hostile garden. His pleasureable task is to try to collect all the fruit and goodies that have been left lying around and under the garden, so that he can prepare for hibernation.

SECOND OPINION

The animation is okay, but those single-colour characters are really drab. As for gameplay, there are some vicious timing problems but not a great deal else. Not bad for the money, I suppose, but more colour and a bigger playing area would both be welcome.

AW

It's a platform/exploration game in which the garden is split up into three main areas. There's above ground where Harold can take a stroll in the grass, underground tunnels composed of a very red clay soil, and the pond where he can get more than just his toes wet. All three areas have bits of fruit spread around them, and in addition there are other flowers and objects to brighten up the view.

Harold is delightfully animated as he makes his way around the ghastly garden. He walks on his back legs, his spikes bouncing around on his back, with a happy look on his face and a great jumping action where he crouches and then waggles his legs as he flies acrobatically through the air. You'll believe a hedgehog can fly.

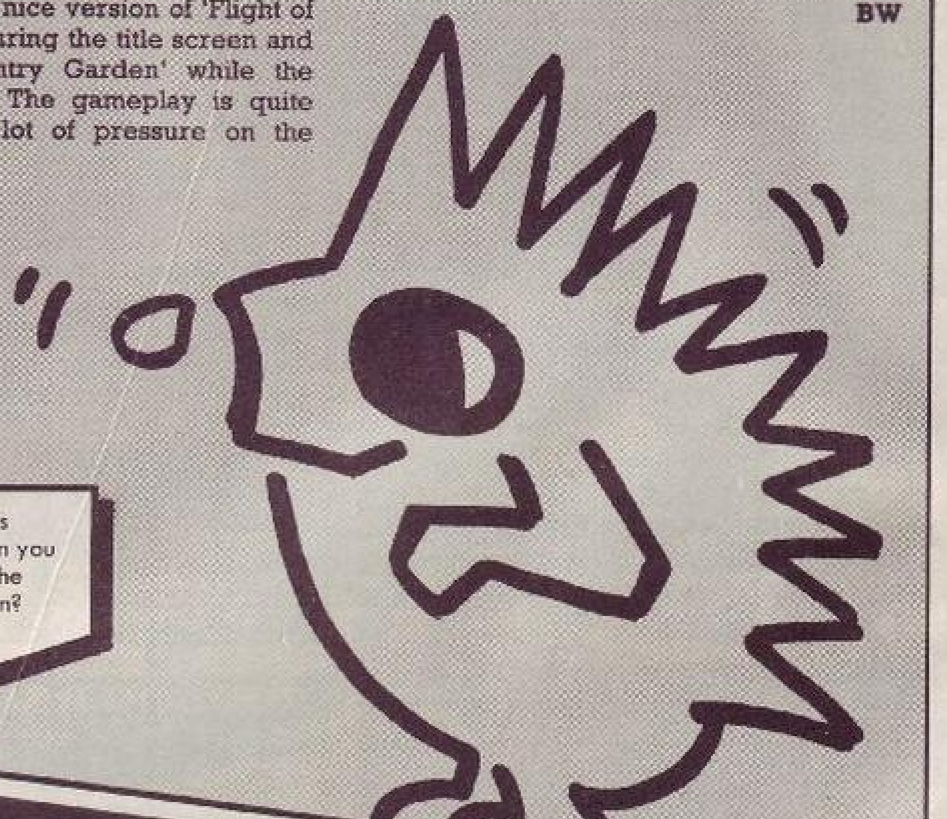
He also displays an impressive array of teeth when he eats the goodies – pity he doesn't use them on the gardens nasties. There are plenty of things to get his gnashers into including apples, cherries, grapes and the odd glass of wine. The wine has a rather unnerving effect on Harry because until he gets off the screen it reverses the controls, which can initially be rather confusing.

The other animals that threaten Harry are also well drawn and animated; including little chicks, wasps, flies, worms, mice, birds, clouds, fish and some decidedly non-biological threats. These feature on just about every screen and follow movement patterns that have to be worked out so that they can be avoided more easily in the future. This is often tough because it requires split-second timing and because the creature's movement patterns intersect differently if left to repeat their routes.

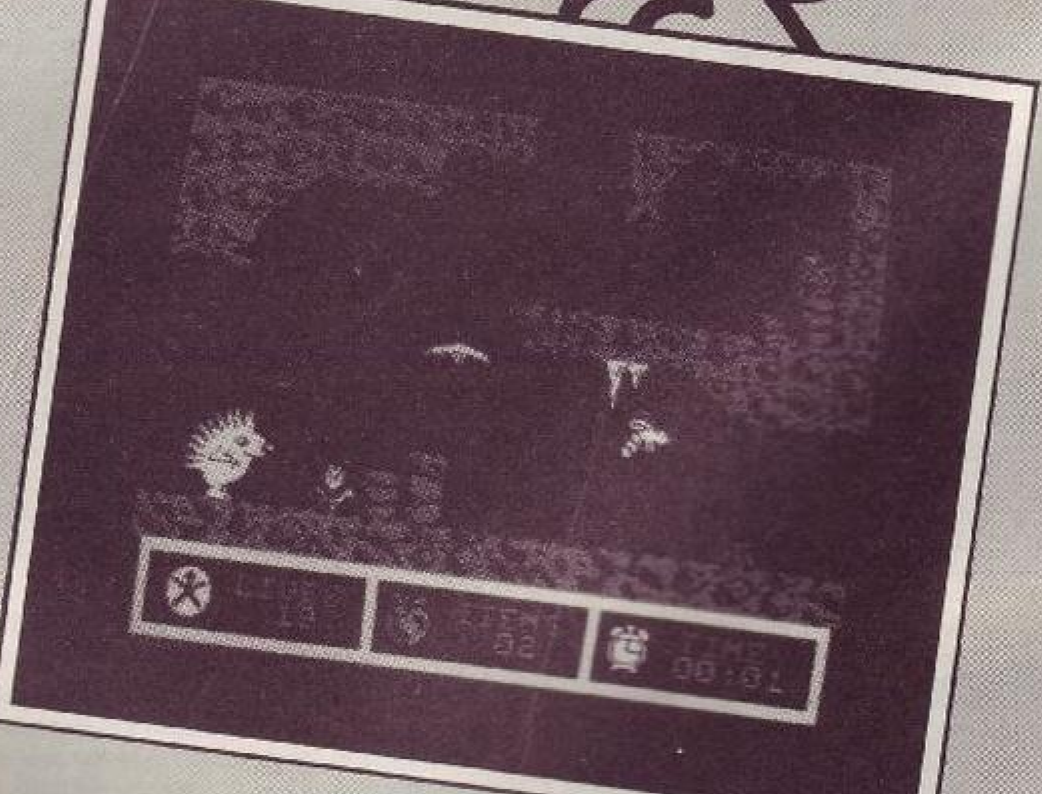
Touching any of the moving animals with a snout, spike, foot or such will result in the loss of one of Harry's 20 lives. That may sound like a lot of lives but it's very easy to lose them and you'll need every one to complete this task. Only experience will teach you where to go and when, but in some situations a suicide leap for a piece of fruit is needed.

The use of colour is disappointing throughout the game; with a bit more work and imagination it could have looked a lot nicer. There isn't much sound in the game but it does have a nice version of 'Flight of the Bumblebee' during the title screen and 'An English Country Garden' while the game is loading. The gameplay is quite tough, putting a lot of pressure on the players timing, but at heart it's just a simple explore and collect effort. A good budget title that should give a fair amount of fun.

BW



Harold sure is spiky, but can you point him in the right direction?



G O O D N E W S

- ▶ **Well animated and humorous main character.**
- ▶ **Some tough timing problems to deal with.**
- ▶ **The water and wine glasses are good features.**

B A D N E W S

- ▶ **Not much use of colour.**
- ▶ **If you don't like timing and pattern problems it won't be much fun.**

GREEN SCREEN VIEW

Plays fine, and still looks drab.

AW

GRAPHICS	59%
SONICS	56%
GRAB FACTOR	63%
STAYING POWER	51%
A A RATING	66%

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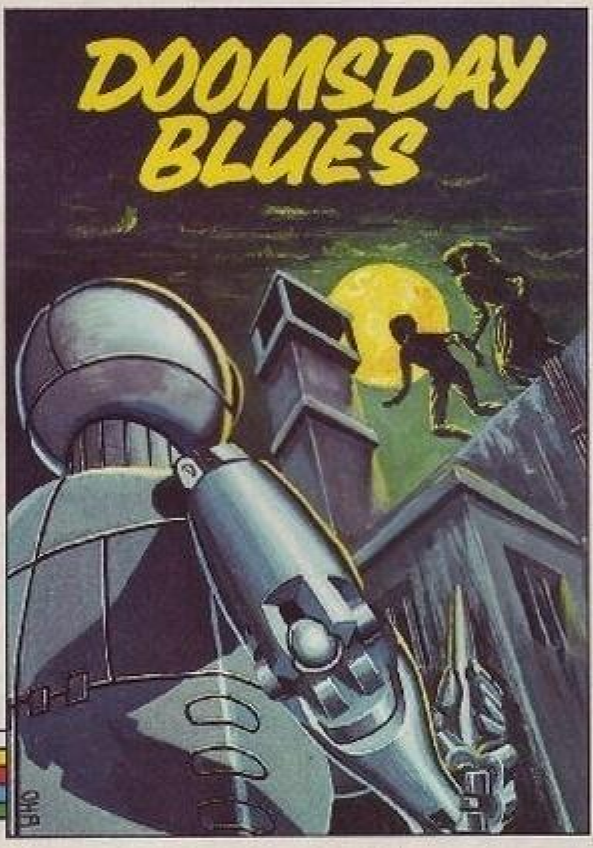

DOOMSDAY BLUES

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ERE INFORMATIQUE

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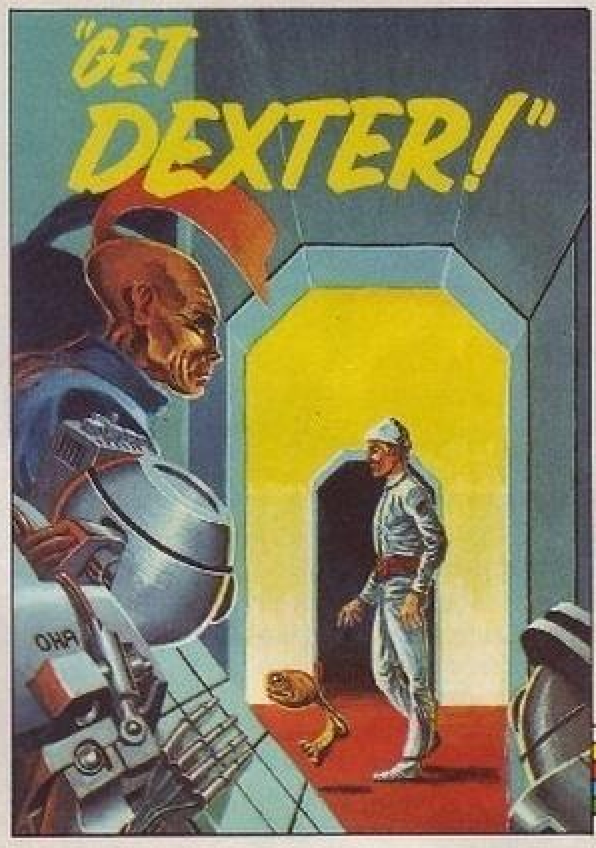

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BOMBJACK

Elite, £8.95 cass, £14.95 disk - joystick or keys

Elite have produced another conversion of a popular arcade game that looks set to do as well in the home market as it did with arcade fans. It stars a caped hero called Bombjack whose mission in life is to collect bombs. This he sets out to do on various picture postcard screens, each one containing 24 bombs.

There are five backgrounds to the game screens, which serve no purpose but do look awfully good. You start at the Sphinx and a pyramid, move on to the Parthenon, a chateau, a cityscape and, finally, a city at night. Overlayed on these views are the 24 bombs and a number of platforms.

Bombjack appears in the middle of the screen and drops downwards to the floor. Dotted around him on the screen are the 24 bombs in rows and columns, and usually a number of platforms. The task is simple enough – just jump around the screen and collect all the bombs. The complexity and difficulty lie in other features of the game and in the tactics required to survive for long and to get high scores.

After collecting the first bomb, the fuse on one of the others will start sparking. The sparking bombs can be collected for double the points and if 20 or more of the 24 bombs collected are sparking then a big bonus is awarded. Trying to collect all the sparking bombs is quite tough and requires you to follow a particular route around the screen. The route will be different each time but is nearly always extremely difficult.

The enemies on each screen are what make life really tough for BJ since they kill him on contact and home in on him while he's in action. The first to appear is a seagull, who slowly moves in on our hero after appearing in one of the screen corners. Next are four knights who materialise near the top left and drop down the screen by wandering along the platforms and falling to the next one down.

When they reach the bottom they turn into one of three other types of alien. These all home in at some speed but exhibit slightly different characteristics while doing it. Disembodied helmets and rotating eyeballs bounce off the platforms and the screen edge, displaying some inertia as well, while the flying saucers are less prone to homing in on you, preferring to float more aimlessly about the screen.

Bombjack is aided by his prodigious jumping ability which can usually take him three quarters of the way up the screen, but with fire pressed he can go the whole way. While in flight he can be guided left and right or slowed in his descent by pressing the fire button, filling out his super hero cape.

The only other things that will aid you are the three types of bonus ball that appear from the top of the screen. One gives you an extra life when collected, while another doubles the score for each bomb picked up. These two drop straight down the screen and roll along platforms till they reach the bottom of the display. The third type of ball is a power ball that bounces about the screen, and when picked up freezes the enemies and gives you more points for collecting them.

As you progress through the screens you'll notice the recurrence of patterns of bombs and platforms, but along with the backgrounds they combine to change the appearance of the screen. This introduces some variety, and along with the increasing speed of the enemies gives the game lasting interest.

The whole thing is very slickly put

SECOND OPINION

Big brash arcade graphics, knockout controls and an intriguing task make this a really addictive game. You'll soon be clearing the screen, but getting those hefty sparking-bomb bonuses will keep you playing into the wee small hours. You'll tire of it eventually, I suppose, but you'll have put in plenty of playing time by then.

AW

EQUINOX

Mikro-Gen, £9.95 cass; joystick or keys

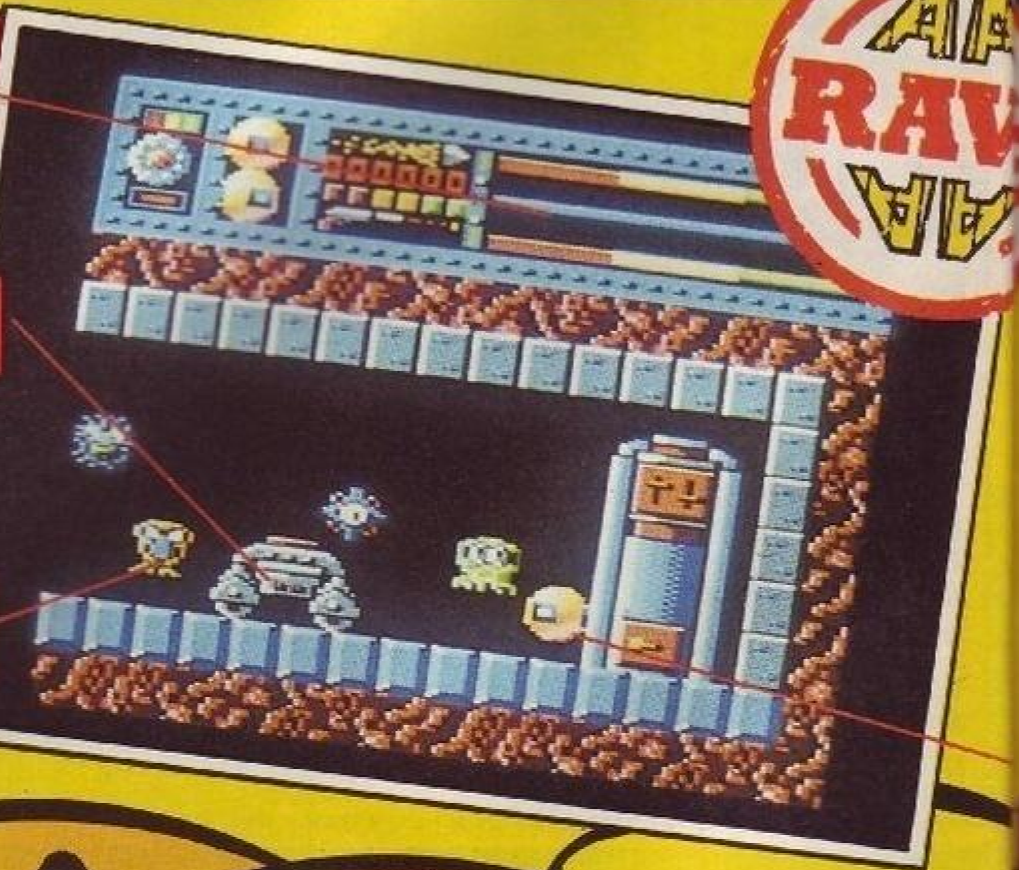
It's back to the mines for Mikro-Gen with another topical game, this time all about the disposal of radioactive canisters. The game is a colourful exploration game, but with a good dose of puzzles and arcade action thrown in. Eight canisters have to be disposed of in the eight levels of the asteroid mine – and that's tougher than trying to get Wally Week to go on a diet.

This noble end is achieved using a spherical disposal droid, the instructions and a lot of hard work. On each of the eight levels the droid has to find a radioactive canister and get rid of it down a disposal chute, then find a pass to take him to the next level. To complete these tasks he has to overcome several obstacles and avoid the menace of the alien creatures that roam the mining complex. Each level must be

SECOND OPINION

Grows on you, this one does. The puzzling isn't actually too... well, puzzling, but it takes a fair old amount of brain power just doing everything in the right order. The constant need for upward thrust makes control awkward, and avoiding the aliens takes more luck than judgement at first – but work at the game will help in both these areas. A bit of a good one.

AW



Fuel and power gauges which are used up by upward flight and shooting

Credit dispenser that will cost you a life

Aliens with whom you should avoid much contact

Feature finding

There are a number of features in the game that you'll need to identify and find out how to use, so here's a rundown on some of them.

CREDIT DISPENSER: swaps a life for a teleporter credit.

TELEPORTER TERMINAL: has to be paid for using a credit and trans-ports you to another terminal.

RADIOACTIVE CANISTER: thes are what you have to dispose of.

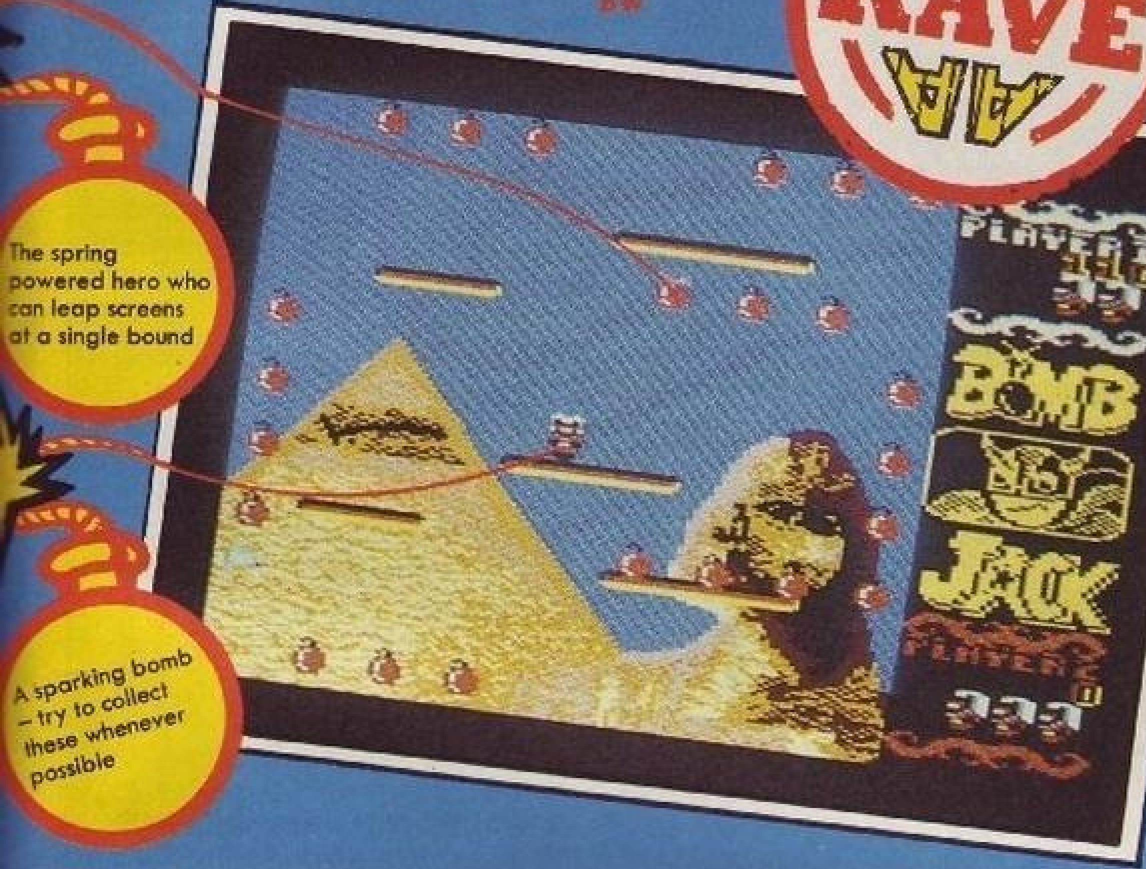
DISPOSAL CHUTE: and this where you get rid of them.

TRANS-LEVEL TELEPORTER: whe you've got a pass card you ca move between sections of th mine using this.

CREDIT: lets you operat

together and has addictive gameplay, much in the mould of *Boulder* but not as original. There aren't that many surprise features but what there is will keep you plugging away at the game for long hours trying to raise your high score.

BW



The spring powered hero who can leap screens at a single bound

A sparking bomb – try to collect these whenever possible

GREEN SCREEN VIEW

No problems seeing everything, but the scenic backgrounds lose a lot of their attraction.

AW

GOOD NEWS

- ► **Five beautifully drawn backgrounds.**
- ► **Great control over Bombjack.**
- ► **Nicely designed layouts of bombs and platforms.**
- ► **Addictive gameplay.**
- ► **Increasingly difficult against faster moving aliens.**
- ► **Skilful play really pays off in the score.**

BAD NEWS

- ► **Not much variety in the screens.**
- ► **Gameplay may become repetitive and requires no thought.**

GRAPHICS	85%
SONICS	37%
GRAB FACTOR	89%
STAYING POWER	77%
A A RATING	84%

completed before the radioactive canister explodes and ends the game.

The droid that you control can be moved around in any direction, but consumes fuel when it's thrusting upwards. It can carry one object at a time and has the vital ability to shoot marauding aliens. Fuel and laser power have to be replenished from time to time otherwise the craft will be left without uplift or defence. Control is in general fairly easy but you have to pay constant attention to movement and that's very wearing.

The rooms in the mine are attractive and colourfully drawn although some of them are quite bare. There's all sorts of mining equipment that's been left lying around to brighten up the view, but you won't have much time to admire it because the aliens materialise on every screen. These are also colourfully designed and after appearing start whizzing around screen, randomly bouncing off walls and objects.

The aliens can be destroyed with your laser fire but after a few seconds they reappear. The threat they pose is a serious one because prolonged contact (about half a second) will cause the droid to explode and you to lose a life. You don't actually bump into the aliens but pass through them, so that if your droid accidentally moves along the same path as that taken by an alien it spells disaster – unless you have very quick reactions and can alter direction in time.

This loss of life is a source of annoyance because it's very much a matter of luck as to whether an alien takes the same course as the droid, and there are only three very precious lives. A better system would have been for the aliens to gradually drain the droid's energy, which he could then replace in the same manner as fuel and laser power.

The puzzles are fairly straightforward because you can only carry one object at a time. In most cases it's a chain reaction of using one object to get at another. The difficulty lies in performing the actions in the right order, particularly where teleporters are concerned. You need a credit (coin) to use a teleporter, and there is only a limited number of these, so that a wrong move may cost you the game.

This makes a pleasing departure from Mikro-Gen's previous games but has their hallmark of excellent graphics and tough gameplay. The puzzle solving is easy to get into but completing the game is a tough proposition because of the constant threat to your life. You'll keep plugging away trying to get that bit further and it's very rewarding to achieve success.

BW

Your spherical disposal droid

teleporters.
MAGNETIC LIFT: lifts the droid up a tube but won't let you travel back down.
FUEL CAN: replenishes fuel. If you run out the droid can't go up.
BATTERY: replenishes the droid's laser power.

GREEN SCREEN VIEW

This game really loses a lot, seeing all those bright, colourful graphics reduced to shades of green. Plays fine, though, and looks okay – so long as you don't know what you're missing.

AW

GOOD NEWS

- ► **Colourful screens and aliens.**
- ► **Testing action for the joystick and the brain.**
- ► **Nice features like the credit dispenser and magnetic lifts.**
- ► **Good control over the droid.**
- ► **Easy to get into but tough to crack.**

BAD NEWS

- ► **Life loss from aliens is annoying.**
- ► **One mistake can ruin a game.**

GRAPHICS	87%
SONICS	62%
GRAB FACTOR	84%
STAYING POWER	82%
A A RATING	83%

TAU CETI: SPECIAL EDITION

CRL, £14.95 disc, joystick with keys or keys

This epic space game is now out in an improved disc version, which looks promising since the cassette version was Raved in our April issue. There's no real change to the gameplay but the presentation and detail within the game has been considerably extended.

The basic task is the same as that of the cassette version, namely to stop a deserted planet's robot defence systems by shutting down its main reactor. To do this you have to collect rods from cities on the planet and put them together before inserting them into the reactor core.

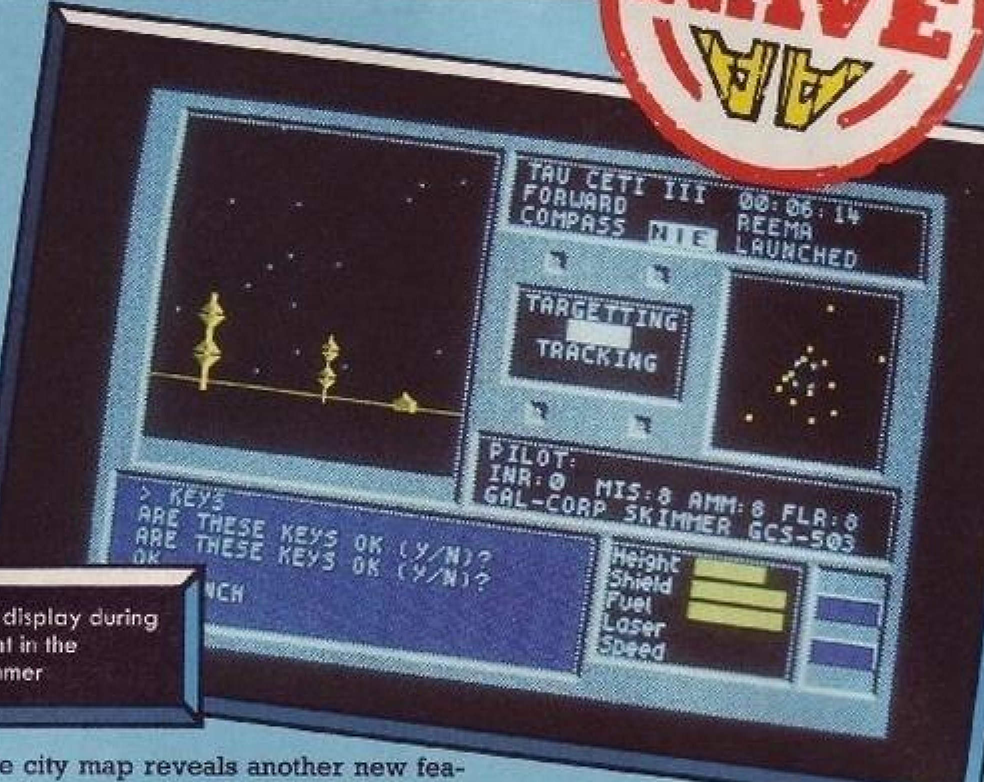
SECOND OPINION

The original was a great game, but the extras here give it a whole new depth. The delay during disk access can get on your nerves, but that's a small price to pay. In return you get libraries to consult, timevaults full of goodies, and suicidal odds at the nastier outposts. Well worth the extra cash.

AW

The rods are found in reactor substations which can be docked with in your 'skimmer' spacecraft. This spends its time skimming the planet surface from city to city, blasting robot defences and trying to stay alive. There are other buildings that you can dock with, including a new addition in this version – the libraries.

Libraries are found in all cities and contain timevaults which are opened by solving a puzzle. Inside are various objects that may help your mission like super missiles, extra shields, radiation suits and a single jump drive. Libraries can also provide plenty of useful information. Their data banks can give details on many of the features and background to the game; an identification chart helps you recognise all the planet features and a city map reveals the location of all the buildings.



```
TAU CETI III   00:06:14
FORWARD        REEMA
COMPASS  NIE   LAUNCHED

TARGETTING
TRACKING

PILOT:
INR:0   MIS:8 AMM:8 FLR:8
GAL-CORP SKIMMER GCS-503

> KEYS
ARE THESE KEYS OK (Y/N)?
ARE THESE KEYS OK (Y/N)?
OK
NCH
```

The display during flight in the skimmer

The city map reveals another new feature on the game – the outposts. These are areas of each city that can only be reached using a single jump drive, and which contain some nasty surprises in the form of hordes of robots.

Other areas in which the game has been improved are the graphics for the interiors of buildings, the presentation of menus and instructions at the start of the game and additional buildings and features like volcanoes and more robots.

The disc version certainly improves a good deal on the cassette and makes a great game even better. Worth a look even if you've got the cassette version already.

BW

GREEN SCREEN VIEW

As before, the infrared screen option is hard to use, but otherwise the game's fine.

AW

AA RAVE

GOOD NEWS

- **Excellent graphics and menu handling.**
- **Tough combat action against even more craft.**
- **Very difficult long term task.**
- **Puzzling and strategy add something extra.**
- **Nice additional features like libraries and outposts.**

BAD NEWS

- **Not very impressive sound.**

GRAPHICS	91%
SONICS	20%
GRAB FACTOR	90%
STAYING POWER	92%
A A RATING	91%

THEY SOLD A MILLION: 2

The Hit Squad, £9.95 cass, £14.95 disc

The Hit Squad know when they're onto a good thing so here's the second compilation of bestsellers, this time coming from Ocean, US Gold, Ultimate and Psion. Once again it's tremendous value for money, but it is more than a little disappointing that products like this are coming out when the Amstrad market still hasn't got together a charity product for Off the Hook, Soft Aid or any other worthy causes.

The individual rating for each game may differ from their original rating, reflecting the improving standard of Amstrad software since they were first reviewed.

Bruce Lee-85%

This martial arts and platform game was reviewed in Issue Two, where it got a Rave. It involves the legendary kung-fu hero in a 20 screen battle against an evil wizard, who has set many nasty traps for you to negotiate. Not only do you face plenty of tricky hazards, but two vicious oriental opponents as well.

The screens are connected up in various ways that reveal themselves as Bruce collects magic lanterns. These remove doors, open holes in the floor, reverse lifts and so on to allow further progress. Some hazards have to be avoided by good timing and jumping, while the two adversaries, Yamo and Ninja, have to be avoided or fought.

If Bruce makes it all the way he has the pleasure of seeing the wizard explode.

ocean
They Sold a Million II
ULTIMATE
BRUCE LEE
PSION
match point
MATCH DAY
AMSTRAD SCHNEIDER
HIT SQUAD

AA RAVE

There are some very pretty screens and plenty of non-stop action that still make this an excellent game.

SECOND OPINION

Once again, a compilation of classics rescued from oblivion by those awfully wealthy Hit Squad people. Good value for money it may be, but original it isn't. If you haven't got any of the games and don't mind the sporting slant, they're certainly worth buying – but they are showing their age.

AW

Match Point-71%

A very tough tennis simulation that's harder to beat than Ivan Lendl. You can play against the computer or a human opponent on a 3D court, viewed from one end. The computer plays a very good game, against which you'll need many hours of practice before you can even think of winning.

A two player game is more fun and more competitive. The graphics are well done, the players are well animated as they move around the court, but it is a slight disadvantage to be at the far end of the court.

Match Day-81%

Another fine sports simulation, this time set on the football field. It's played on a scrolling pitch with a goal at either end, on which you can battle a computer team or another player, either in one-off games or a full cup competition.

It has all the features you'd expect: heading, throw-ins, goal kicks and corners, and plenty of options for changing colours, match length and skill. The computer opponent isn't too hard to beat, but it's best played as a two player game where exciting contests can develop with plenty of passing, dribbling and scoring. The graphic clash when players overlap is unfortunate but obviously doesn't affect the gameplay.

Knight Lore-86%

The now ageing Ultimate classic still stands up well to comparison with more recent efforts. Its graphics are very colourless by today's standards but the puzzle solving and gameplay have lost none of their addiction and lasting challenge. It isn't quite so impressive because of more recent games like *Batman* and *Get Dexter*, but it would still get a Rave even today.

The game takes place in a 128 room castle from which objects have to be recovered by solving various puzzles, and then taken to a wizard's cauldron. It's a very tough game with plenty of hazards and action. A grand old game that is surviving the test of time.

BW

GOOD NEWS

- ▶ **Two great sports simulations.**
- ▶ **One classic arcade adventure.**
- ▶ **One great combination of platform and combat game.**
- ▶ **Great value for money.**
- ▶ **Ideal buy if you haven't got any of the titles.**

BAD NEWS

- ▶ **Compilations don't speed the production of more original titles.**
- ▶ **We still don't have a compilation for charity for the Amstrad.**

CLASSIC INVADERS

Bubble Bus, £2.99 cass, £9.95 disk, joystick or keys

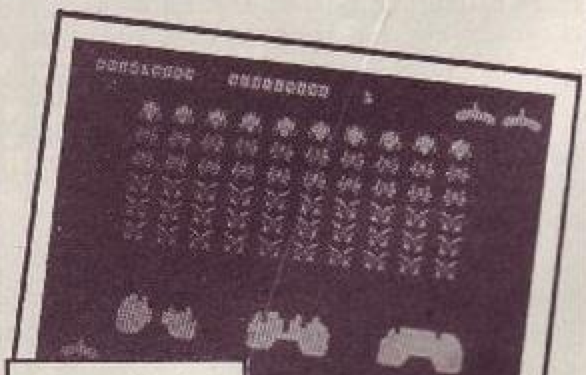
It's hard to believe I know, but this really is a version of that grand daddy of all computer games *Space Invaders*. Quite rightly it's a budget title, but I get the sneaking suspicion that there will be a fair number of people keen to have a go at this old classic.

For those who have been living in a Tibetan monastery for the last few years and don't know what *Invaders* is, I'll give a quick summary. You control a single shot laser base that can be moved left and right at the bottom of the screen. Above you appear a phalanx of aliens who shuttle across the screen, moving down and getting faster every time they hit the edge. Between the two forces are three shields that you can hide under. The aliens shoot at you and you shoot at the aliens – they always win but you've got to survive as long as possible.

SECOND OPINION

Amazing, isn't it; you really wouldn't think anyone would have the nerve to produce this game. Ah well, human nature never ceases to be miraculous and unfathomable. The game? Well, it's a reasonable version – slick almost. But that's no excuse.

AW



Rows of aliens just waiting to be slaughtered

If you destroy one wave another materialises, lower and faster than before. The only other thing that appears is a spaceship that whizzes across the top of the screen and can be shot for a bonus score.

That's all there is to it but even today it will still get the adrenalin pumping and needs good reflexes. The graphics are much more colourful than the original with some nice aliens and explosions. There are also some jolly little musical bursts thrown in and a high score table that you can save for posterity. No prizes at all for originality, but if you're looking for nostalgia or a classic, mindless blast then you might want to shell out the few pennies for it.

BW

GREEN SCREEN VIEW

Perfect – absolutely perfect.

AW

GOOD NEWS

- ▶ **Nice nostalgia trip.**
- ▶ **A very colourful and fast version.**
- ▶ **Hasn't lost much of its addictiveness over the years.**

BAD NEWS

- ▶ **Appallingly unoriginal.**
- ▶ **The most mindless of games.**
- ▶ **Even £3 seems a bit much.**

GRAPHICS	44%
SONICS	53%
GRAB FACTOR	57%
STAYING POWER	39%
A A RATING	48%

TOADRUNNER

Ariolasoft, £8.95 cass, joystick or keys

It's hard to believe it from the title but this is an arcade adventure and not a version of *Frogger*. It may seem odd that the main character, played by you, is a toad, but then it seems only natural when you're trying to rescue a princess. Perhaps he'll turn into a prince at the end – don't you just love a happy ending.

The game is set in a funny sort of landscape filled with odd looking plants, weird monsters and strange building structures. The toad has to 'slime' (a horrible sound effect) his way around the screen, with his bulbous belly bouncing up and down. To start with the game area is quite limited – to escape into a wider arena you've got to crack some very tough problems.

Toad has four pockets (odd things for an amphibian to have) in which he can carry the many objects found in the game. An object in the fourth pocket can be used under the right circumstances – for instance an axe can be waved around to try to hit something.

On each screen a bug appears which drains old toady's energy when it touches him. Other screens have larger monsters which may also drain his energy but are more likely to kill him outright if they run into him while following a movement pattern. These patterns usually guard a screen exit, so the monster has to be removed before you can get through.

Getting rid of monsters is a major part of the game and to do it you need to have the right object. An axe obviously comes in handy – your only problem is finding out which monsters to use it on. Trial and error is what's needed most of the time and this will cost you an awful lot of lives and games early on.

> **SECOND OPINION**
>
> *Revolting graphics and wretched sound ought to be enough for any game, but the gameplay beats them both. The use of objects is largely irrational, and those triple exits are criminally stupid. If you really work at it, there is more to this game than meets the eye – but nowhere near enough to be worth the effort.*
>
> **AW**

Another source of death and frustration at the start are the 'triple exits'. This is where there are three parallel exits from a screen but two result in the end of the game. A scenery feature indicates which is the safe route, but this has to be learnt by trial and error, isn't standard for different screens and will drive you up the wall until you've worked it out.

A later frustration is a thief who appears on screen after a while and maliciously swaps objects around from locations you have visited. Once you've worked out his behaviour he shouldn't be too tough to cope with though.

The game's main problem is that to start with there are too many difficult problems. There are the triple exits, many deaths and restarted games through trial and error, and some obscure puzzles that need many frustrating games to crack. A much more friendly opening would have been appreciated because there's quite a good game size and many things to do.

The game also suffers from annoying practical problems in picking up objects, using them, and in movement, which further damage first impressions. The graphics are quite pleasant, featuring some nicely drawn monsters, although many locations look quite bare. The sound is disappointing with the incessant squelching noise of the toad guaranteed to get on your nerves. A game that has quite a few tough problems and plenty to keep you going, but that will probably have lost its audience long before they get to most of them.

BW

> **GREEN SCREEN VIEW**
>
> *I thought this one might look okay in green, but I was wrong. It's horrid, and some features are quite difficult to see.*
>
> **AW**

GOOD NEWS

- ▶ **Many locations and objects to find.**
- ▶ **Some tough problems to work out.**

BAD NEWS

- ▶ **Triple exits are infuriating at first and take some while to work out.**
- ▶ **Picking up objects can be difficult.**
- ▶ **One mistake can end a game – very annoying.**
- ▶ **Relies mostly on trial and error at first, giving a bad first impression.**

GRAPHICS	48%
SONICS	21%
GRAB FACTOR	18%
STAYING POWER	56%
A A RATING	30%

ROCK'N WRESTLE

Melbourne House, £9.95 cass, joystick or keys

There's certainly plenty of wrestle in this latest in the line of combat games, but there's absolutely no rock at all. The wrestling is very different from previous attempts at combat games because it has a large variety of moves and takes place in 3D. Those aren't just advertising claims to hype the game, but whether they make a good game is another matter.

> **SECOND OPINION**
>
> *If you find the game confusing at first, don't worry – it isn't just you. This one really takes some practice, and that 3D just makes things worse. Whether it's worth all that effort is another matter. Beat the computer opponents once, and I doubt you'll want to play the game again.*
>
> **AW**

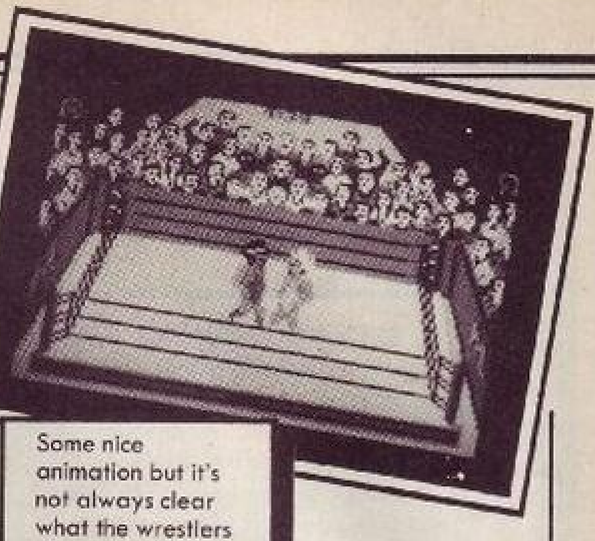
The action all takes place in one wrestling ring where you can either take on the world's top ten wrestlers as Gorgeous Greg, or you can battle with another player to see who can inflict the most bruises. The aim is fairly simple – to pin your opponent to the canvas for a count of three. Achieving it is a lot tougher because there are over 20 moves that can be performed and the computer opponents are quite skilful in their use of them.

Against the computer you have to battle past the 10 opponents, most of whom are insulting racial stereotypes in the same vein as those in *Frank Bruno's Boxing*. Each one has to be pinned to the floor within a three minute time limit without letting them pin you, otherwise you lose the bout. A win takes you on to face a new opponent who is more skilful and powerful, until finally you challenge the world champion.

The screen shows the ring with a crowd around it, and at the bottom of the screen are strength gauges for the two wrestlers. These don't determine the result of a bout but they do affect the wrestler's ability and recovery in some moves.

Most tussles are opened with a bit of softening up by both men using kicks, lifted knees and forearm jolts. The next step is for one of the fighters to grab the other, and from then on there are many different moves that can be performed. Most of these depend on whether you grab the man from the front, side or back, and at first can be difficult to string together successfully.

The confusing thing about most of the moves is the 3D nature of the game. Each move is performed by pushing the joystick or a key in a particular direction. The problem is that the directions change as the wrestler turns around the ring, and you need to pause in certain circumstances to work out exactly where you need to move the joystick next. Practice brings more familiarity, but you'll need plenty before being fully skilled.



Some nice animation but it's not always clear what the wrestlers are up to

When your opponent is on the floor he can be pinned down. If he has enough strength he may be able to throw you off; this depends on how much strength he has left. Many of the moves may get the man on the floor but the follow up is always crucial.

There are too many moves for us to tell you about all of them but amongst the more spectacular are the turnbuckle fly, in which you leap off the ring posts; the pile driver, in which you drop your opponent head first on the canvas; and the aeroplane spin, in which you whizz your opponent around before slamming him to the floor.

The graphics are very well worked to produce the 3D effect, but it's often difficult to tell exactly what's going on. Not only is there a lack of rock but what sound there is is hopeless. The fight action has a fair bit of depth, with some interesting manoeuvres being possible after some practice. These are most fun with the two player option though, because the computer opponents can be beaten in a fairly predictable manner. It's certainly a very clever and detailed production but lacks really gripping gameplay and excitement.

BW

GOOD NEWS

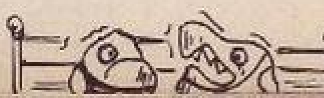
- ▶ **True 3D action in the ring.**
- ▶ **Large variety of moves.**
- ▶ **Impressive animation for some moves.**

BAD NEWS

- ▶ **Computer opponents are fairly predictable.**
- ▶ **Virtually no sound at all, never mind any rock.**
- ▶ **Gameplay may be clever and detailed but it isn't very exciting.**

> **GREEN SCREEN VIEW**
>
> *Perfectly visible, and none of those garish costumes either.*
>
> **AW**

GRAPHICS	62%
SONICS	8%
GRAB FACTOR	64%
STAYING POWER	54%
A A RATING	58%



VOICE OF THE PEOPLE

All of the regulars are back again this month with messrs Masterson, O'Connell, Hughes and Connelly monopolising the postbag again. They are hogging the limelight with their brickbats and bouquets. However there are plenty more of you with something to say – you can't possibly agree with us all the time.

Batman* and *Bounder* both come in for considerable praise but the dynamic duo from Sidcup really sock it to us over *Monty on the Run*. If you want to get in on the act then don't delay, send us your views on all the latest games you can get your hands on. All arguments will be settled in a gentlemanly manner with pistols at dawn (but I warn you, Bob is a mean shot!). Send your comments on the back of a postcard or stuck down envelope to: *Voice of the People, Amstrad Action, The Old Barn, Somerton, Somerset TA11 5AH.

BOUNDER
Gremlin Graphics
AA Rating 92%

Brilliant! This is easily the most addictive game I've played in a long while. The gameplay is highly original and the graphics are excellent. If you are even remotely interested in arcade games – buy this!!

Gerry Hughes, Cranleigh

This was well worth the accolade of Mastergame. Bob Wade certainly knows a great game when he sees one. The graphics are absolutely brilliant and the tune may even make the top 30. But it's just the sheer addictiveness that makes the game great. It is pure torture and you just keep coming back for more. Once you start playing you won't be able to stop. This game is bound'ter keep you up to the small hours of the morning (Sorry).

Richard Connelly, Crofton

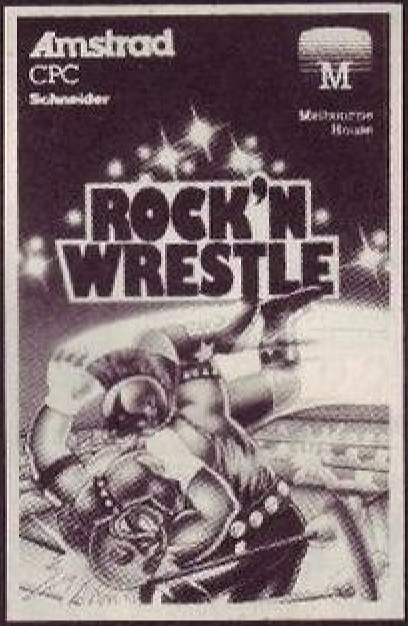
ROCK'N WRESTLE
Melbourne House
AA Rating 58%

This follow up to *Way of the Exploding Fist* is a good attempt at a wrestling simulation, but not up to the standard set by programs like *Fist* and *Yie Ar Kung Fu*. Nevertheless if you enjoy 'beat-em-ups' it's well worth a look.

Gerry Hughes, Cranleigh

To start off with this game is wrongly titled. It should be called *Wrestle*, because there is no rock. As for the rest of the game, the graphics are alright and animation is very good. Gameplay is also reasonable. All in all a good game that lacks some ROCK.

Simon O'Connell, Sidcup



MONTY ON THE RUN
Gremlin Graphics
AA Rating 65%

This is one game where I must disagree with Bob Wade. Of course the music is incredible, but it is not just another platform game. Has *JSW* got teleporters, a jet pack and a C5? I don't think so. I suspect Bob didn't get very far into the game? In short this game is fantastic!

Simon O'Connell, Sidcup

The first thing that hits you about this game is the phenomenal music by Rob Hubbard. Will it be bettered? Apart from that the gameplay is also excellent. I can't see why AA didn't like it.

Emmet Masterson, Sidcup

COMMANDO
Elite
AA Rating 76%

After playing this on a Spectrum I was in no way disappointed with this version. It has good graphics, great scrolling, great music and very tough gameplay that make this a must for every shoot-em-up fan. My only groan is frustration. You can lose all your lives in just one spot. Overall a great game.

Mark Baron, Poole

This is a good rendition of the arcade game with good scrolling, graphics, gameplay and sound. The worst thing about it is that when you run across the runway the game loses a lot of speed. Overall an excellent shoot-em-up.

Emmet Masterson, Sidcup

Forget *Rambo*, forget *WDW II* – buy *Commando*. It is absolutely brilliant. The graphics are far superior to any other game of this kind and puts them to shame. Your character is a real mean piece of work who prides his ability in murdering hordes of enemy scum. He is well equipped for the job with a mean gun and grenades too. The sound is wonderful with a really atmospheric tune. The game is exceptionally tough as your man seems to be taking on the whole of Europe, but he's more than man enough to cope with it and return a glorious hero.

Richard Connelly, Crofton

WINTER GAMES
US Gold/Epyx
AA Rating 90%

This is most definitely the best sports simulation to grace the Amstrad's screen. The events are all brilliant and require skill rather than severe waggling. The backdrop scenery is good enough to go on a postcard and the actual animation is brilliant too. For those who fancy themselves as Torvill and Dean there is skating, those who prefer the dangerous sports have ski-jumping, hot dog and bobsled, while for those who just want to get knackered there's speed skating and the killer biathlon. My only moan is that the cassette loading is annoying, so do yourself a favour and beg, borrow or steal a disc drive and treat yourself to a great game.

STARQUAKE
Bubble Bus
AA Rating 80%

Get this game! It has fabulous music and sound effects, amazing graphics and great gameplay. It is very addictive and well worth £8.95. I would willingly sell my Amstrad to buy this game! It is ace.

Simon Cuddeford, Kenilworth

AMSTRAD
Starquake
bubble bus software

BATMAN
Ocean
AA Rating 93%

This game looks like another Ultimate clone, but that is as far as the similarities go. *Batman* is extremely easy to get into and you'll keep coming back for more. Colour is used brilliantly, so much better than a one or two colour Ultimate game. The tune too is a good rendition of the Batman theme.

Although the game is very easy to get into some of the puzzles are really clever, but with a little experimentation you should be able to start to save Gotham City. I must admit I haven't got very far but I'm certainly going to keep on trying. It's that sort of game, a real challenge. I do have one quibble – where's Robin?

Richard Connelly, Crofton

This game really is good. Great graphics in great colour and marvellous animation. The gameplay is also great – just the right difficulty. The only thing wrong is the totally naff music. Ocean don't seem to be able to write music eg *NOMAD*, *Rambo* and now *Batman*.

Simon O'Connell, Sidcup

HARVEY HEADBANGER

Your alcoholic imagination could win you the latest in headbanging headwear, plus a copy of this great *Firebird* game

Ever fancied yourself behind a sulty Florida bar, casually mixing a Tequila Sunrise for the tall, dark stranger languishing against the counter? This could be your chance.

No, I'm afraid we're not giving away a holiday for two in the States. However we are giving you the chance to come up with some new cocktails for that stranger. What would you have on offer?

You can combine any liquids that you want, though please make sure it's not poisonous – otherwise we'll make you drink it! You can use as many ingredients as you want too, including herbs and spices, but remember that some of the best cocktails ever are made of very simple recipes. Suggestions as to the type of vessel best suited for consuming your masterpiece will be taken into consideration too, as will suggestions for the ideal setting for consumption. If you want to illustrate your conception, to get us in the mood as it were, it all counts! The competition will be judged by us, and the Editor's decision is final (provided he's sober enough to make it!)

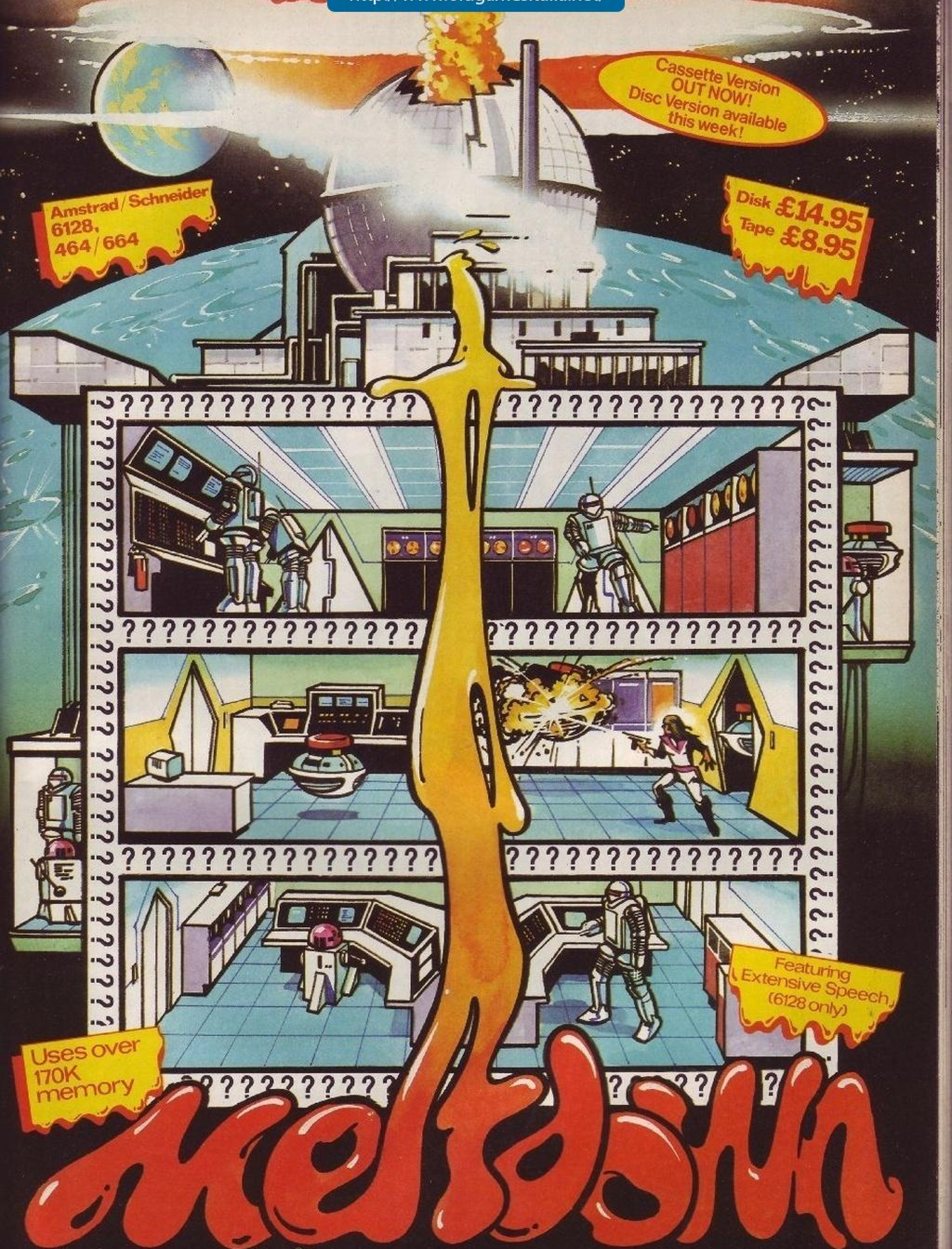
PRIZES

***Firebird* are giving away 15 great Harvey Headbanger Hats, the very latest on the fashion scene, to the top entries. Just the thing if you want to make an impression! And for the top five entries, there will be a copy of *Harvey Headbanger* the game as well. This AA Rave, reviewed on page 44 of this issue, is possibly the best to come out of their 'Silver Range' so far. At £1.99 it's a snip – for free it's out of this world!**

COMPETITION
HIC
HIC
C.M.

Competition entries

The closing date is Friday July 18th. Entries should be in an envelope addressed to: **Headbanger Competition, The Old Barn, Somerton, Somerset TA11 7PS.**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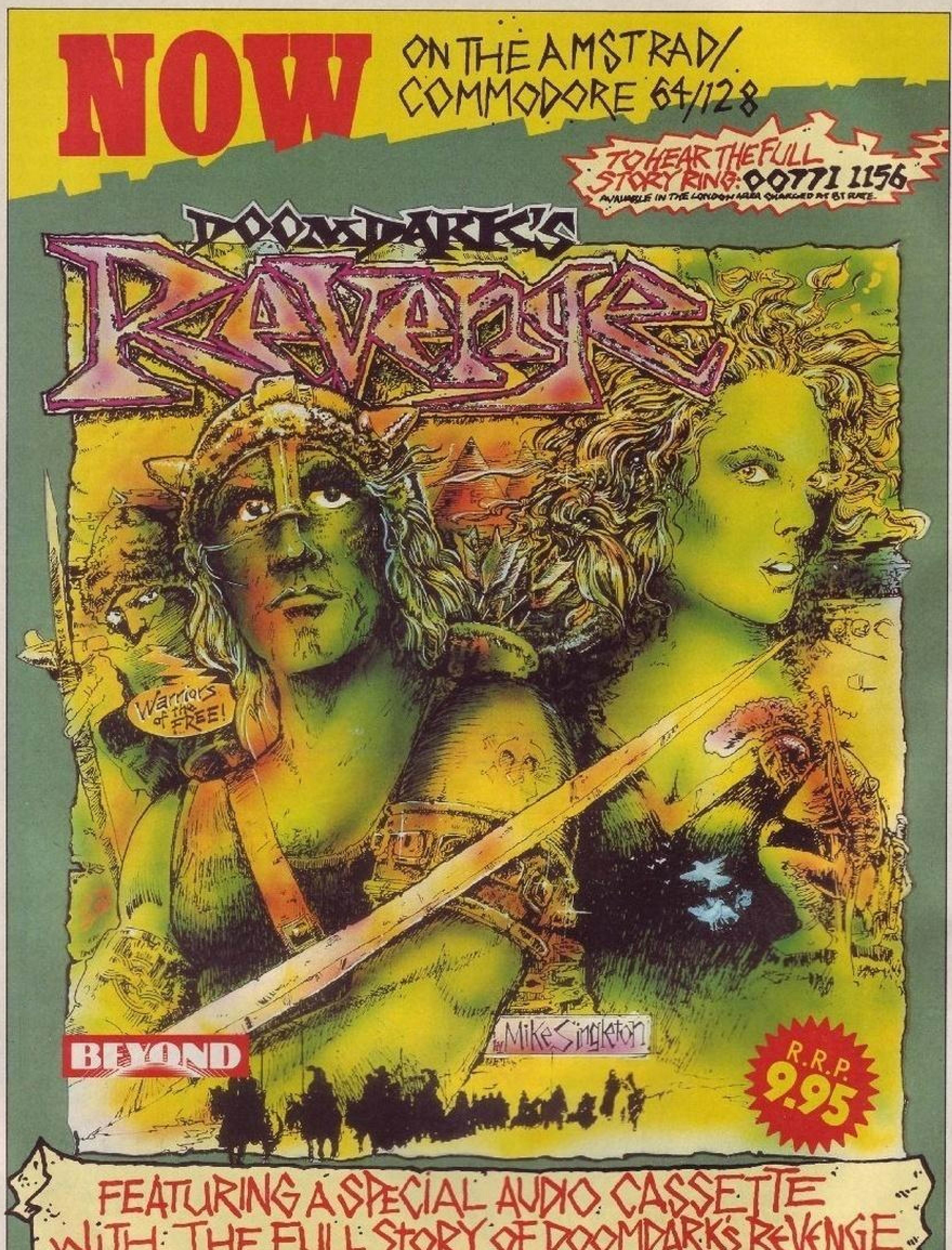
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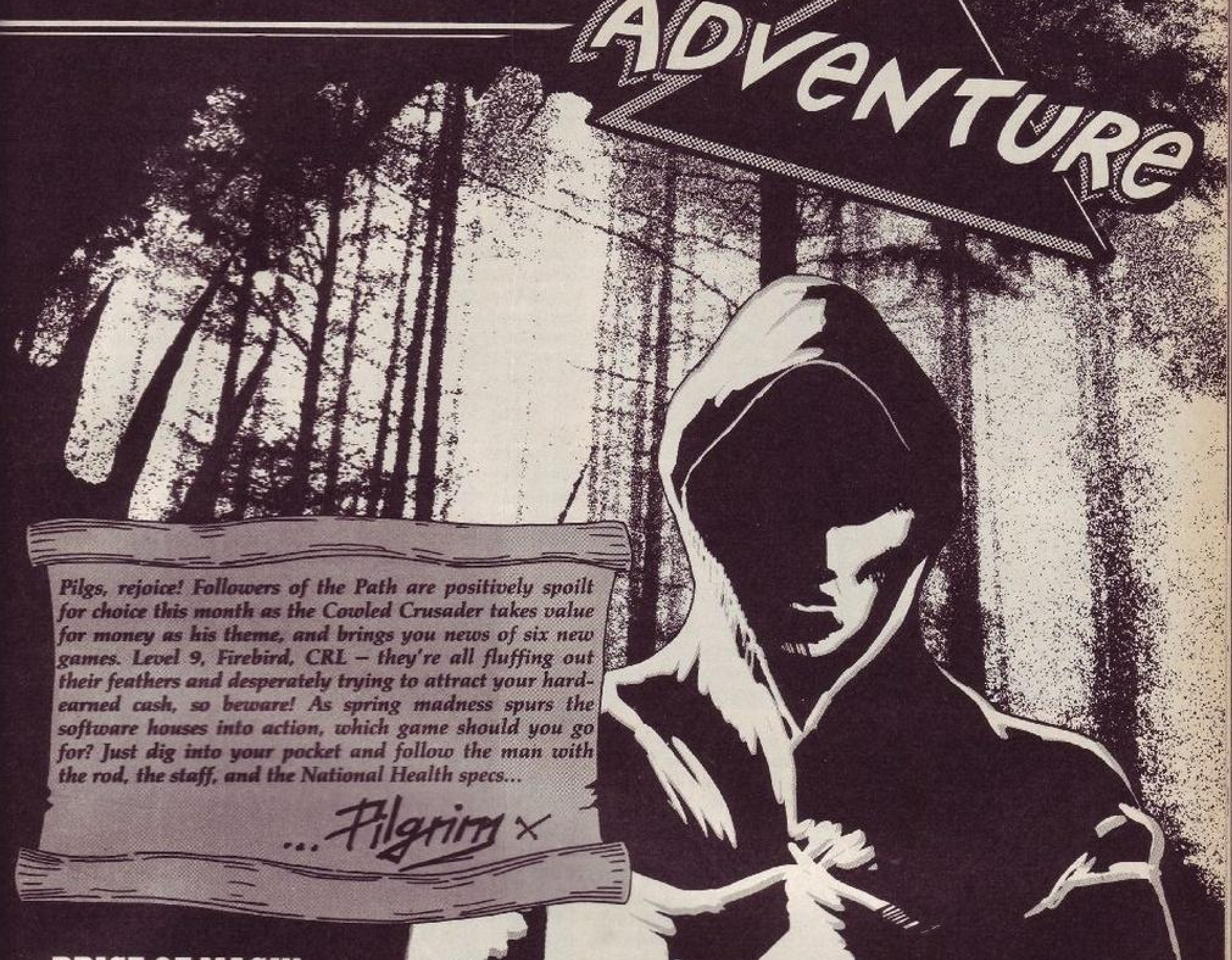
Doomdark's Revenge is more than adventure, mightier than a wargame. 6,144 locations, 48,000 screen views, 128 characters and 128 objects to collect. There are icelords, barbarians, dwarves, fey and giants to meet. Bitter weather conditions and welcoming torches to guide you through caverns. Its a game for one or more players whose skill alone will determine victory or defeat.

Doomdark's Revenge is available now from software dealers everywhere. In case of difficulty write to: Beyond, British Telecom, Wellington House, Upper St. Martin's Lane, LONDON WC2H 9DL.



Pilgs, rejoice! Followers of the Path are positively spoilt for choice this month as the Cowled Crusader takes value for money as his theme, and brings you news of six new games. Level 9, Firebird, CRL – they're all fluffing out their feathers and desperately trying to attract your hard-earned cash, so beware! As spring madness spurs the software houses into action, which game should you go for? Just dig into your pocket and follow the man with the rod, the staff, and the National Health specs...

...Pilgrim x

PRICE OF MAGIK

Level 9 Computing, £9.95 cass

Yessir, the Price is right, Pilgs. Here be the latest from Level 9, featuring for the second time their new adventure system but with added sparkle and extra features. It's top of the list this month in terms of size, originality, and chart-topping challenge.

Just in case you hadn't twigged, Level 9 are now boasting 1000 word vocabularies on all their new releases, thanks to their new compression methods (giving over 50 per cent reduction). The parsers are also far more effective, allowing inputs like 'Take all except the boozlbug, the byms, and the bantam, then go north and kill the slug'. The graphics and text now print siumltaneously too, so you can interrupt the picture-drawing to move on to another location without having to hang around while the scene unfolds.

The effect of these innovations, already featured in *Worm in Paradise*, is to make the games vastly easier and far less tiring to play if you sit at the screen for hours on end. In addition, with *POM*, Level 9 have introduced three more significant developments.

The first two involve extra commands, which are most helpful to the beleaguered Pilgrim. RAM SAVE and RAM RESTORE will save your game to memory instantly, so that you can instantly restore to a previous position. However I was disappointed to find out that they would not work once you'd died, so saving to tape is still recommended every now and then. The OOPS command enables you to go back one move, useful if you've just regretted joining battle with a giant slug. Again, you can't use it to get out of terminal situations.

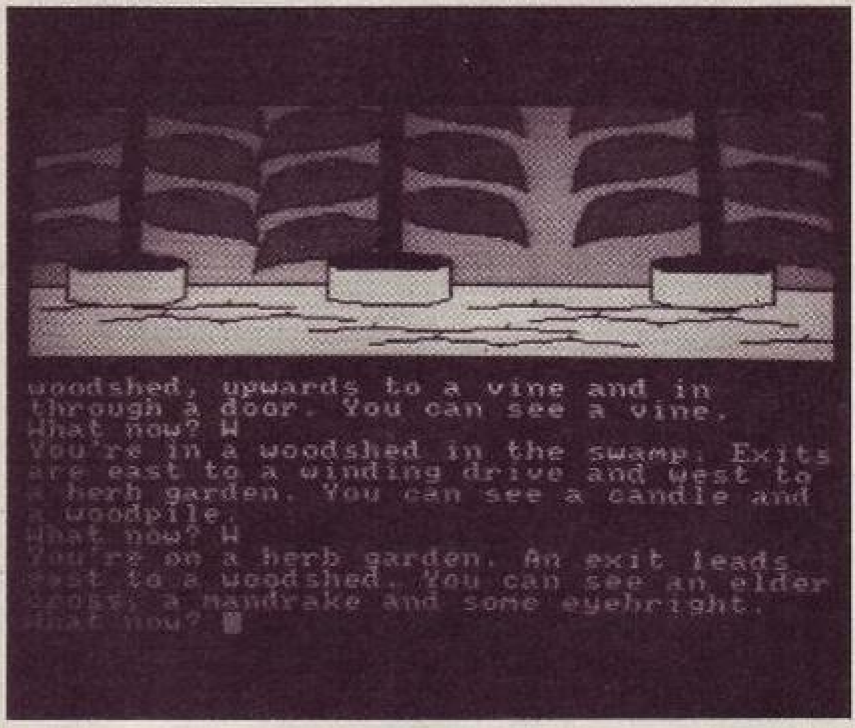
The final new development in POM is the introduction of 'independent characters'. These have been around the adventuring scene for quite some time now, ever since they first really gripped the punter's imagination in *The Hobbit*. In some games, for example *Suspect* by Infocom, the interactive character has become a whole game in itself, but this requires large amounts of memory or disc storage, so on tape-based games the characters are necessarily rather limited.

In *POM* there are various baddies to contend with. Some just attack you malevolently, while others can be communicated with if you have the right questions or commands to give. Commands are given simply by prefixing your input with the name of the creature, followed by a comma – e.g. WEREWOLF, EAT BREAKFAST. Quote marks are not required.

So there you have the raw bones of the program. The actual plot is a sequel to the very popular game Red Moon, which got the 'Adventure of the Year' award last year. Level 9 have always seemed more at home in the world of magik than the world of hi-tech and the Pilg is glad to see them concentrating on this area once again. In *POM* the Red Moon crystal is controlled by Myglar, who is using it to supplement his own life-energy rather than for the good of the people. Your task is to supplant Myglar and re-establish the benign influence of the crystal.

As plots go, this one isn't the most original of Level 9's efforts. However, the game itself is somewhat different in being almost exclusively about magik. Most of the objects in the adventure are fairly easy to find, but actually using them isn't a doddle by any means. There are 18 spells that you will have to master in order to outwit Myglar and at the beginning of the game you don't even know how to cast a spell, let alone where to find one or what to use it for.

However, after much exploration of the House of the Red Moon, in whose echoing rooms the adventure takes place, you begin to uncover meaningful inscriptions that will enable you to commence your magikal career. Most spells take the form of brief words that are inscribed in hidden places, and all require an object to act as a 'focus' for the spell before it will work.



```
woodshed, upwards to a vine and in
through a door. You can see a vine.
What now? W
You're in a woodshed in the swamp. Exits
are east to a winding drive and west to
a herb garden. You can see a candle and
a woodpile.
What now? W
You're on a herb garden. An exit leads
east to a woodshed. You can see an elder
cross, a mandrake and some eyebright.
What now? █
```

The presence of magik or magikal objects is indicated in the program with the message 'Your sanity is shaken'. This refers to the title of the program, which derives from Pete Austin's belief that, in reality, magikal expertise can only increase at the price of one's sanity. You start the game with a sanity rating of 100 per cent and steadily sink deeper and deeper into mental confusion as your prowess as a magician grows.

You also grow older during the game far more rapidly than any doctor would recommend. You can avoid sinking into your grave before your time by touching a certain object, but I'll leave it up to you to find out which one. Age isn't your only problem either. The program gives you a stamina rating and this receives a severe beating every time you indulge in combat with a rattling skeleton, giant slug, or whatever happens to be blocking your path.

There are over two hundred locations, all with graphics. The graphics aren't much cop I'm afraid, but perhaps this is just a matter of personal taste. Certainly the Pilg has never made a secret of his dislike of Level 9's graphical style, but others are free to disagree. I find it rather lacking in definition and in *POM* I even felt that some of the pictures were misleading. One, for example, clearly shows a stairway leading down when there is in fact not one present in that location.

However, this game seems certain to keep even the most astute Pilgrims busy for quite some time. I plugged away for several hours and still hadn't uncovered more than half the locations, and the use of magik is a hard one to crack – I've currently got only three of the eighteen spells under my belt.

The game definitely has a different flavour to that of most previous level 9 releases because of the independent characters. For the most part they exhibit satisfyingly varied 'actions' which give a greater illusion of reality. However, they do affect the style of the game – you'll find that the most tricky puzzles tend to centre around how to deal with people or animals. The locations and objects aren't all that hard to find, but gaining access to them is difficult. All this makes for a slightly new style of adventure from a company we have all come to admire. It will leave you £9.95 poorer, but a richer Pilgrim in all other respects.

SEABASE DELTA

Firebird, £1.99 cass

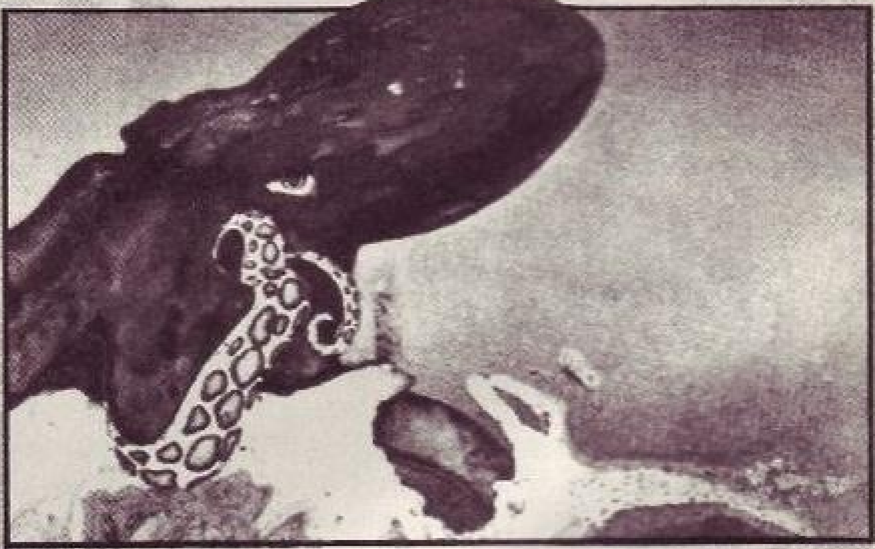
We now descend to the very depths of the ocean, where we find the rock-bottom price range of £1.99 from Firebird. Don't be put off by price however, my fellow Pilgs, for this is no flatfish – it's a great little wriggler that will give many a full-priced game a good run for its money.

Seabase Delta is a sequel to Subsunk (already reviewed by the Pilg) but you don't need any familiarity with the earlier program to enjoy it as much as I did. It's a Quilled + Illustrated game that boasts some excellent graphics, a reasonable vocabulary, some tricky but admirably logical puzzles, and one or two ingenious touches.

Seabase Delta is the underwater headquarters of a gang of baddies who have just succumbed to some nameless disease, leaving you with an (almost) free run of the base. They've also left you with the teensy-weensy problem of a nuclear warhead to dispose of, and of course, the problem of escape afterwards.

The base is built around a number of different substations joined by a mini-train network. You hop into a vehicle, insert your security card, and whizz off to the next station. All this is very well done using *The Quill*, with sound effects and dramatic pauses, though at times the pauses threatened to slip from drama into tedium – a not uncommon Quill characteristic.

There aren't that many locations, but then you don't expect all that many for £1.99. There are however a reasonable number of puzzles – enough to keep you busy for a day or two at least depending on your powers of intuition. The graphics are excellent though they tend to redraw rather too frequently, for example whenever you uncover a new object by searching a room. This holds things up a bit, but is entirely forgiveable because the pictures draw quickly, and are an added bonus given their quality and the game's price.



Seabase Delta isn't going to keep you going for anything like as long as a game like *Price of Magik*, but then it's in an entirely different league – and in the budget league it comes out very near the top.

ROBIN OF SHERLOCK

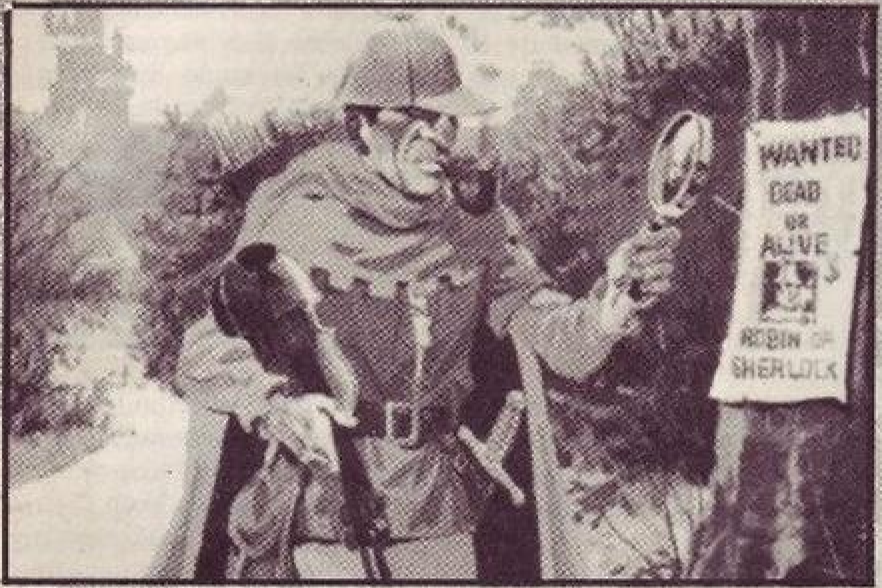
CRL, £7.95 cass

In this inimitable spoof, Robin finds himself confronted with a dead Doctor Watson, a chastity-belted Marian, and Hurn the Hunter gone haywire in the Fried Squirrel Bar. There is also an exploding Friar Gorbachetnik, a railway network that bears uneasy resemblance to the one in Sherlock, and a series of Sherwood Forest graphics that look depressingly, and often hilariously, familiar.

CRL seem to be making a name for themselves with excellent satirical adventures at the moment. They've taken on St Brides (see below) with their *Very Big Cave Adventure*, they've assaulted us with *Bored of the Rings*, and now they're setting us sleuthing in Sherwood Forest. For those of you who enjoy a good laugh, this game comes out very near the top in

terms of originality.

For a Quilled game it's also unusually large. The program has been split into three parts, giving you a healthy number of locations to explore. You can move between any of the parts at will, though this entails saving a string of game data to tape for use in the next section each time.



What makes the game so amusing is the way elements of both *Robin of Sherwood* (an overrated game if ever there was one) and *Sherlock* have been twisted into one idiotic scenario. Wandering through Sherwood forest it comes as something of a shock to stumble across a British Rail ticket office, but taking a trip to Huddersfield is every bit as exciting and challenging as it was in the original Melbourne House program. You can also visit the convent, Hurn's shed (one of many), the Smurph's village, and a large number of other equally absurd locations.

There are also some ingenious mimickings of other features of this program's supposedly more illustrious forbears. The 'Talk to' feature of *Sherlock*, which you used to question suspects, has been excellently Quilled into the game with often hilarious results. First you type 'Talk to (name of person)' and then proceed with your questions. In fact, for a Quilled game, the parser appears extraordinarily flexible and the vocabulary doesn't let you down as often as you might expect.

So if you fancy a game written by the authors of *Bored of the Rings* with the aid of 'an elephant gun and an articulated lorry', that features lamps stolen from the Nottingham Holiday Inn, the sudden falling of day and night, and a misbehaving H.T.Hunter, then this is for you, my fellow Pilgs. Your Cowled Crusader has a reputation for being a bit hard to please when it comes to comic adventures, but here we undoubtedly have a game that is both consistent in its own illogical way and genuinely funny.

THE LOST PHIRIOUS – Part 2

Vidipix, £2.50 cass

Persistent readers of the Pilg may remember a couple of months back a review of the first part of this trilogy from Vidipix. It didn't get first-class ratings because I felt that it was rather too easy, and that the puzzles themselves were slightly illogical.

Well, Vidipix have got the guts to persevere, which they've demonstrated by sending me the second game in the series. I'm glad to say that the Pilg found it quite an improvement on Part One.

In this new game you find yourself on earth, and must secure the necessary materials to build yourself a space-ship in which you can proceed with the rest of your mission. In case you missed the last review, this entails the salvage of a lost space-ship called the Phirious, believed to have been carrying a valuable cargo.

Phirious is a Quilled game without graphics. I was interested to see that the authors intend to produce the third part of the series using GAC, which is perhaps just as well because I don't feel that they have really squeezed the best out of *The Quill* in this case. Games like *Bored of the Rings* really demonstrate the potential of Gilsoft's utility, but *Phirious* belongs to the rather larger category of pick-up'n'puzzle solving adventures.

This part of the trilogy is called The Planets because – surprise – it features Saturn, Neptune, and other members of the Solar System. You can transport from one planet to another by saying the correct co-ordinates in the right place – both of which you have to determine yourself.

There's certainly a lot more to do in this game than in its predecessor, which Vidipix tell me was meant to be a 'beginners adventure'. There are just over 70 locations and although there are no graphics the atmosphere is maintained to a credible degree.

There are still, I feel, certain weak points in the programming. For example, there's a robot who will carry heavy items for you, but you can't communicate with it. In order to use it, you just pick the robot up (difficult, I would have thought, unless you're possessed of superhuman strength) and from then on you can move enormous loads. Similarly, there's a door in one room, clearly stated as being to the east of you, that you can't enter without a certain object. However, even carrying the object you have to GO DOOR to pass through, rather than go E or OPEN it, both of which you might reasonably expect, but neither of which you can do. Solving little problems like this takes rather a lot of time, and sometimes guessing the correct solution isn't enough – you have to grapple with the parser as well.

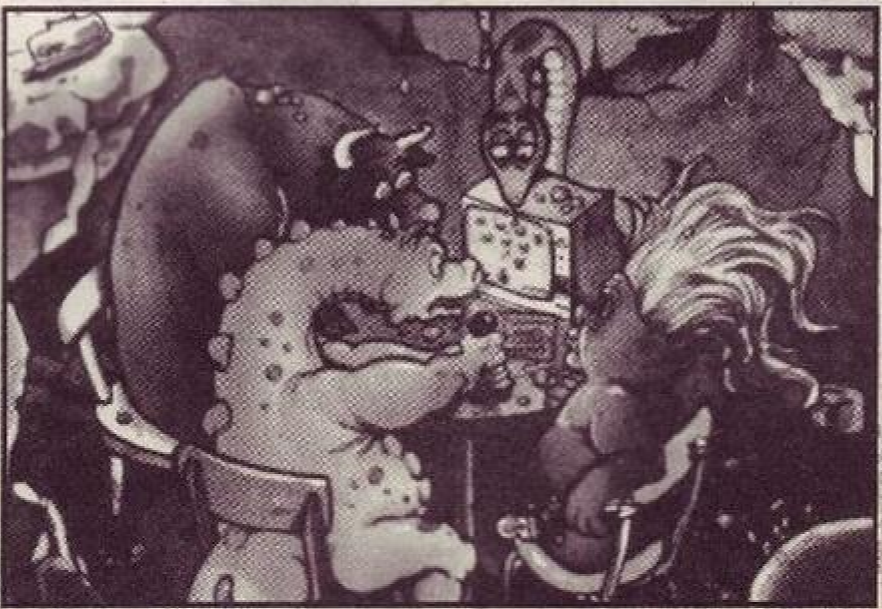
My other criticism is that not enough of the objects yield further descriptions when EXAMINED. In one case this is critical – there's a reception pad in the first location, but examining it reveals nothing about it. In fact, it's the sort of pad you have to write on – a very difficult conclusion to reach without a hint sheet.

The Planets costs £2.50 from Vidipix at *125 Occupation Road, Corby, Northants, NN17 1EG*. It's not the best value budget release around, but it's an improvement on its predecessor and I hope that Part Three shows a similar advance in style and techniques.

THE VERY BIG CAVE ADVENTURE

CRL, £7.95 cass

The Pilg's first reaction on seeing this release was 'It's been done before'. You see, it's such an obvious idea once you think of it: to parody the Great Original itself. But the fact is that no-one has ever done it before! So full marks to St Brides for trampling over another of our sacred cows, and thank you to CRL for putting it before the public.



The Very Big Cave Adventure is actually a very serious academic look at the *Colossal Cave Adventure*, first programmed by Crowther and Woods using 170K of Fortran code on a mainframe computer. The game has already been the subject of much in-depth study by many adventurers, but now St Brides have taken the ingenious step of actually providing you with a guide to the caves, Trixie Trinian, who takes you by the hand and leads you through the adventure.

Trixie certainly knows her stuff. She takes you first to the little brick building by the stream, where you find your wellies, keys, and other assorted items for the forthcoming journey. If you try to carry too much, she politely makes this clear to you ('You're carrying too much already, wimp') and she is of great help with the bull that appears to be reluctant to let you down into the caves.

Certain of the underground caverns have not, in the Pilg's opinion, been given the airing they deserve, but St Brides have changed all that. The Space Invader Room, for example, is given a new and definitive treatment – most adventurers will never have seen it before, but here it is in horrible technicolour – you can move left, right, and fire.

At its worst *The Very Big Cave Adventure* is so bad it's funny; and at its best it's hysterical. It's certainly worth every penny of £7.95. The graphics are excellent and the text descriptions are almost up to the standard of the original. I'll leave you with this brief extract from the beginning of the game, where the bull won't let you pass: "Are you still there?" roars the bull guarding the gully. "No", you reply, whereupon he lets you through because, you see, he's GULLY-BULL.

QOR

Maltdale Ltd, price TBA

And now for the last in this month's selection of nouveaux gamettes. QOR is from Maltdale Ltd, a company who I must confess I haven't come across before. QOR is their first game, written using GAC and launched at the June Amstrad show.

QOR features one Joe Steam who has been assigned theperilous taks of penetrating the planet of the title and checking out a vast computer complex that the authorities suspect is being used for hostile purposes. Joe is smuggled aboard a ship in disguise and must keep a low profile before stealing a ship himself to invetigate the situation.

This was a frustrating game because much of it was truly original in presentation. The author, Steve Baker, has come up with a number of imaginative terms, phrases, and objects to give the impression of someone living in the 21st century. The graphics are also, occasionally, excellent but the overall impression of the game is one of extreme unevenness. One moment I was impressed by an imaginative turn of phrase or pretty picture, the next I was let down by some appalling spelling-mistake, or a tattily designed screen.

There are also other rather more serious criticisms. The game features a reasonable number of locations, of which almost all are illustrated, but there aren't a huge number of objects and those that are there often yield little information when examined. Giving objects even a brief message of description helps to keep the atmosphere going in a game and avoid a feeling of frustration, which this game eventually fails to do away with.

At the time of writing Maltdale hadn't fixed a price for the game. Adventurers are growing steadily more choosy these days, and if you can get a game as good as Robin of Sherlock for £7.95, then new entries into the market have to watch both their quality control and their pricing very carefully. QOR needs tidying up on-screen at least before attempting to survive at any price over five pounds.

	Atmosphere	Interaction	Challenge	AA-Rating
Price of Magik	85%	88%	88%	88%
Robin of Sherlock	78%	75%	77%	77%
Seabase Delta	75%	68%	72%	85%
Very Big Cave Adventure	79%	72%	77%	76%
QOR	68%	58%	67%	See note
The Planets	62%	50%	63%	59%

Red Hot Charts...

To The Pilgrim.

My favourite three adventures are:

1. Game: ____________________

Company: ____________________

2. Game: ____________________

Company: ____________________

3. Game: ____________________

Company: ____________________

My reasons for putting game number one above as first choice are:

If I'm a lucky Pilgrim and win a free game, I should like to receive a copy of:

My address is (BLOCK CAPITALS ONLY):

Here we go with this month's Readers' Adventures Chart. Each month the Pilg receives sackfulls of votes for this popular feature, and of course there's the chance to win a free game if your vote is picke out of the bag by the dexterous Pilg.

This month *Red Moon*, popular as ever, was voted into first place. What's interesting, however, is that several old titles (*Hobbit, Colossal Adventure*) are once again poking their heads up. This just goes to prove that old adventures never die – they just wander in and out of the charts.

This month's lucky Pilg is Paul Martin of Warley, who receives a free copy of *The Never-Ending Story*. It's on its way, Paul – hope you enjoy it as much as I did.

1 Red Moon Level 9
2 The Hobbit Melbourne House
3 Return to Eden Level 9
4 Heroes of Karn Interceptor
5 Lord of the Rings Melbourne House
6 Never Ending Story Ocean
7 Marsport Gargoyle
8 Fantasia Diamond Hewson Consultants
9 Warlord Interceptor
10 Colossal Adventure Level 9

Clue Sniffing with The Pilgrim

OK Pilgs, clear the heads and get stuck into this month's clue pot. If you're suffering from a case of Adventurer's Blues, then the answer may be below. And if you're brimming over with tips for your fellow adventurers, why not send them to the Pilg for inclusion in this column? After all, it may be YOU who needs help next month...

Never Ending Story
A rope proves useful to find the pouch – just hang it up above the well.
Drop a coin without hesitation near the wraith

SubSunk
Plunge that basin and spill acid on rust
Wear the strainer for head protection

Warlord
Do not release the wild ox

Mindshadow
Go fishing for news at the pier
Think 'Tycoon' in the restroom

Seabase Delta
Stick the button in the lift with gum
You'll have to make something with the barrel – check video for a clue or turn on the hi-fi.

The Hobbit
Wargs can be killed with swords
Put all objects back where they came from to get a higher percentage.

Price of Magik
Casting DOW can stop you from being blown up
Use the salt to get past the giant slug

PILGRIM'S POST

The Pilg gets frequent mail about the bugs in both *The Hobbit* and *Lord of the Rings*, but a letter arrived this month which claimed to offer a partial solution. "I wonder if I can help those who are having trouble with the Hobbit," writes **Simon Marshall**, "Richard (AA April) said the program crashed within 15 minutes. According to Melbourne House, the command DO could be responsible. They say that the meaning of DO is wrong and use of it will cause the game to crash. Their solution is simple – do not use the word DO." Sounds interesting, Simon, though I can't help but think that there must be quite a few other bugs in the program, judging by the letters I've had. Anyone else got any tips on avoiding Hobbit-crashes?

Talking of complaints in the mail, "I wish to complain", complains **Chris Parsons**, "about the misleading clue you gave to R Wilson concerning the Babel fish in the *HitchHikers GTTG*. You do need the Babel Fish to complete the game, because without it you cannot get the atomic vector plotter which is needed to make the infinite improbability drive". Complaint accepted, Mr Parsons. The Pilg apologises for being so mxtwyepsl, sn:qtuy dks dhwywl. (Well, you are wearing your babel fish, aren't you?).

Pat Winstanley, of Lords of Adventure fame, writes of his experiences as a Lord, and makes one or two points which I think are worth repeating, so here they are:

"The problem is that those writing 'I'm stuck on adventure x – help' often give me no idea as to where they are stuck. It would help greatly if those seeking help include with their plea a resume of objects found and problems solved, perhaps also the farthest location reached. I don't want to spoil anyone's fun by giving away answers to problems not yet reached. Could you ask seekers to help us help them?!'

Pat then goes on to ask if any readers are interested in setting up a GAC users group for shairng tips, problems, playtesting, and general comparing of notes. This sounds like an excellent idea, Pat, and I suggest that you also mention it to Incentive themselves. In the meantime, anyone interested can contact Pat at 13 Hollington Way, Wigan, WN3 6LS.

Finally, this letter from **Colin Parker** amd **Bruce Wharram** really made me laugh. "We were playing *Heroes of Karn*," they write, "and before that we were playing *Forest at the World's End*. We saved the tape of that and then loaded it back into *Heroes of Karn*. We then typed I to see what we were carrying, and to our amusement found that we had: Beren the King, Little Bear, Khadim the Dwarf, Sleeping Bear, Tinder Box, Copper Gates to the South". Hmmm..any suggestions for what you'd get if you loaded a saved version of *Lord of the Rings* into *The Secret of St Brides*? Trixie Baggins?

Pilgrim News

PCW level

Level 9 have released (through Rainbird Software) 'greatly enhanced' versions of the Middle Earth trilogy, featuring over 600 pictures and a new full-sentence parser, for the PCW 8256/512. Yours for £19.95. They're also promising to have disc versions of their games available soon.

Now the Boggit

After *Bored of the Rings* and *Robin of Sherlock*, we may now have to put up with *The Boggit*. I only hope it isn't as funny as the last two otherwise I shall have to side-surgery. The Boggit is another Delta 4/CRL graphics adventure, split into three parts like *Robin of Sherlock*, and featuring Grandalf and Bimbo on a camping holiday. It should be coming into the shops at around £7.95 as you read this.

Oooh la la

Mandragore is to be the first title from Republic Software, a new UK division of the French software house Infogrames. The Pilg has seen some of Infogrames stuff and it is truly sensational – brill graphics and some truly original gameplay. *Mandragore* promises 250K of adventure, up to four players, and a 'ten chapter booklet' for 14.95. The Pilg reckons this could be a very impressive petit gamette, so watch this space.

New recruits this month, Pilgrims, to the ranks of the Undying Ones. Whether you're cornered by a Balrog or lost in Colossal Cave, there'll be someone here who can help you. These worthy Lords have risked their lives in some of the most dangerous locations of Adventureland, and now they are willing to help you miserable lot out of your troubles. So do them all a favour and DON'T expect them to reply to your queries unless you enclose a SAE. Nor should you presume to call them on the 'phone after 9.45pm in the evenings, because if they're not in bed they'll be busy adventuring on their own account – so keep your calls to reasonable hours.

Return to Eden, Red Moon, Worm in Paradise, Erik the Viking, The Hobbit, Never Ending Story, Heroes of Karn, Bored of the Rings, Terrormolinos plus limited help on *Message from Andromeda, Warlord, Robin of Sherwood, Lord of the Rings*
Kevin McCaughey, 134 High Donaghadee Road, Bangor, NI, BT20 4NH Tel: 0247 452809

Colossal Adventure, Forest at the Worlds End
Alex Aird, 139 Bromford Road, Hodge Hill, Birmingham, B36 8HR Tel: 021 327 5046

Jewels of Babylon, Forest at the Worlds End, Message From Andromeda, Mindshadow plus limited help on *Red Moon, Classic Adventure, Seas of Blood, Warlord, Bored of the Rings, Mordons Quest, Terrormolinos, Heroes of Karn*
David Lincoln, 35 Stainbeck Avenue, Meanwood, Leeds LS7 2QT

Hobbit, Bored of the Rings, Message from Andromeda, Forest at the Worlds End, Warlord, Castle Blackstar, Lords of Midnight
Anthony Collins, 17 Larch House, 37 Shawsdale Road, Bromford, Birmingham, B36 8DG

All games
Rusty Blade Helpline, 1 High Street, Ulceby, South Humberside, DN39 6TG

Jewels of Babylon
Jonathan Williams, 116 Westmead Road, Sutton, Surrey, SM1 4JH

Forest at the Worlds End
Raymond O'Neill, 7 Ardglas, Dundrum, Dublin 16, Eire

All Level 9 games, All Interceptor Games, Ship of Doom, Inca Curse, Espionage Island, Mordon's Quest
Peter Brown, 57 Ropers Avenue, Chingford, E4 9EG

All Games
Tony Treadwell, 17 Headley Way, Headington, Oxford, OX3 0LR Tel: 0865 68637

Mordons Quest, Classic Adventure, and others
Timothy Gurney, 10 Garwyn Avenue, Roudnwood, Meliden, Prestatyn, Clwyd, LL19 8LR (Penpals also wanted – male or female)

Warlord, Heroes of Karn, Forest at the Worlds End, Message from Andromeda, Mindshadow, Lords of Time
Simon Marshall, 23 Springfield Way, Stockton Lane, York, YO3 0HN

Snowball, Return to Eden, The Worm in Paradise, Emerald Isle, Red Moon, Hobbit, Dun Darach, Warlord, Message from Andromeda, Classic Adventure, Lords of Midnight, Ring of Darkness, Never Ending Story, Dragontorc, Souls of Darkon, Project Volcano
The Pancotts, 78 Radipole Lane, Weymouth, Dorset, DT4 9RS Tel: 0305 784155.

Colossal Adventure, Forest at the Worlds End, Red Moon
Robert Shepherd, 4 Trusthorpe Road, Sutton-on-Sea, Lincs, LN12 2LT

The Hobbit, Subsunk, Message from Andromeda, Red Moon, Worm in Paradise, Wise & Fool of Arnold Blackwood, Brawn Free, Trial of Arnold Blackwood, Gremlins
Mrs Pat Winstanley, 13 Hollington Way, Wigan, WN3 6LS

Mindshadow, Message from Andromeda
Len J

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Type-ins

There's something for everyone in this month's type-ins. If you've got a disc drive and a printer, *Cat£8* let's you produce a printed disc catalog without booting CP/M. If cassettes are more your cup of tea, *Speed3K* lets you save at speed. Or if all this sounds a bit too boringly practical, the amazing – and guaranteed completely impractical – *Blitter* will knock your socks off. It's the graphics type-in to end them all – unless you know better!

SPEED 3K

If you own a 464 and can't afford a disc drive, *Chris Rollo's* nifty little program will give you that extra cassette speed you've been looking for. It's very short, it's very easy to use, and it gives you a 3 kilobaud saving speed – that's 50% faster than speed write 1. It's very reliable as high-speed saves go, though a slow-saved backup never does any harm. Just type in, save and run it, and then save programs in the normal way – but a fair bit faster. It'll last until you switch off, reset or use a SPEED WRITE command.

```
10 REM this sets speed 3000 baud
20 'until changed by speed write
30 FOR a=&B700 TO &B709
40 READ n$:POKE a,VAL(n$)
50 NEXT
60 CALL &B700
70 DATA &21,&6e,0,&3e,&0f,&cd,&68,&bc,&c9,0,0
```

CAT#8

If you own a printer and use discs, you've probably wondered about cataloguing to the printer. That would save you all those problems trying to remember just what the filename was, halfway through some tricky operation. The only problem is, Basic won't let you. If you try typing CAT#8, you'll just get a syntax error message. To your rescue comes *Justin Macklin* with this handy little utility to give you a hard-copy CAT. There are two versions – one for the 464, and a shorter one to take advantage of the COPYCHR$ function on the 664 and 6128. It can handle system, data or even IBM formats. Clever stuff, and short too!

```
5   REM    **********************
6   REM     CAT#8 by J.N.Macklin
7   REM    **********************
8   REM    664/6128 version
10 z=3:p$="":MODE 2:CAT
40 WHILE p$<>" ":z=z+1:LOCATE 1,z:GOSUB 150:WEND
50 FOR x=1 TO 16:LOCATE x,2:GOSUB 150:t$=t$+p$:NEXT
60 FOR x=1 TO 9:LOCATE x,z+1:GOSUB 150:u$=u$+p$:NEXT
70 GOSUB 200:PRINT#8," CATALOGUE";TAB(33);t$;TAB(70);u$:GOS
UB 200
80 FOR y=4 TO z-1:FOR x=1 TO 80
90 LOCATE x,y:GOSUB 150:v$=v$+p$:NEXT
100 PRINT#8,v$:v$="":NEXT
110 GOSUB 200:MODE 1:END
150 p$=COPYCHR$(#0):RETURN
200 PRINT#8,STRING$(80,"-"):RETURN
```

CAT–CHA

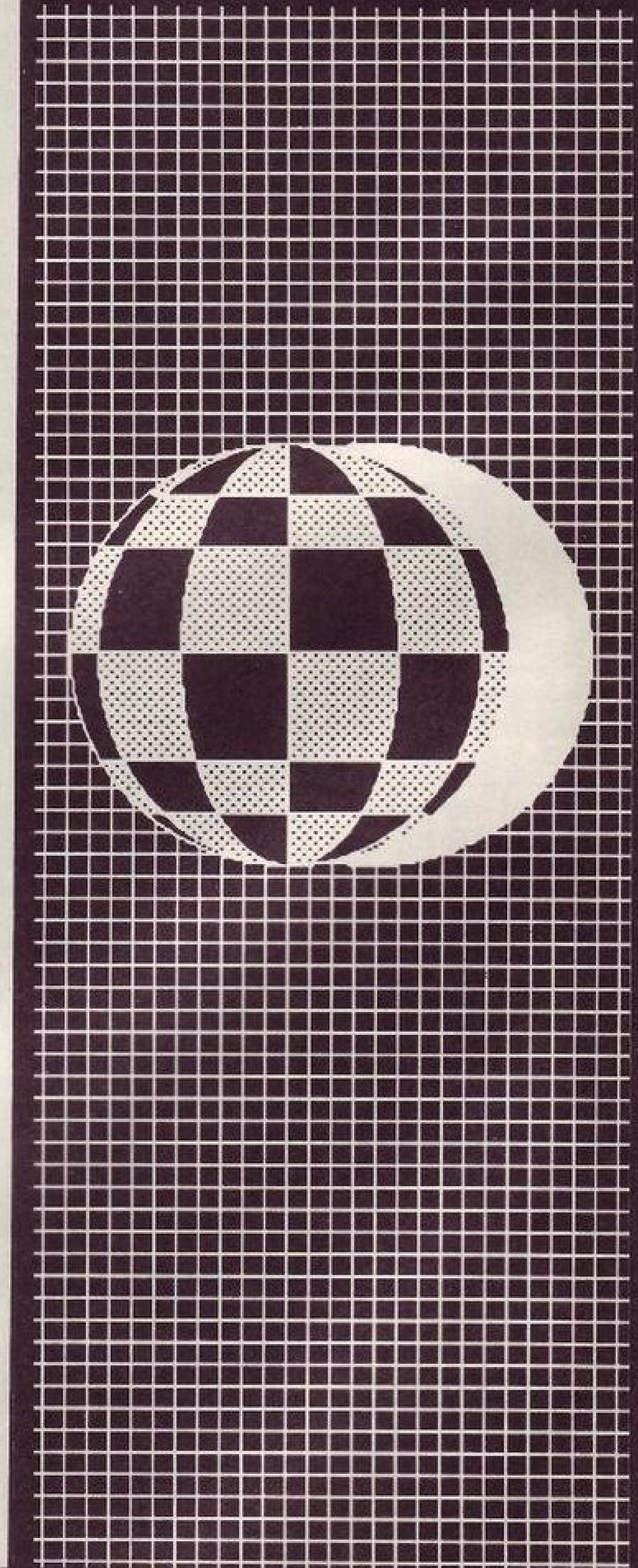
catalogue 60, 86
catalysis 49, 140
catamaran 273, 7
catemenial 138, 2
cataphonics 402
cataplasm 662
catapult 284, 726, 727
cataract
  waterfall 348
  blindness 442, 443
catarrh 299
catastrophe
  disaster 619
  finish 729
  misfortune 735
  end 67
catch *imitate* 19
  fastening 45
  song 415
  detect 480a
  joke 497
  gather the mean-

BLITTER

In May we brought you three stunning graphics demo programs which wrung that little bit extra out of Arnold. We thought they pushed the old CPC hardware about as far as it could go, but *Paul Bond* of St. Helens proved us wrong. His type-in, *Blitter*, mimics a demo program Commodore use to show off their enormously expensive Amiga personal computer.

The demo is of a huge red and white football, bouncing and spinning at the same time, against a grid background – and it takes real power to do that properly. With Paul's program, Arnold can match computers nearly ten times more expensive – not bad, for 3K of Basic! And the perfect demo to put you in the mood for the World Cup.

```
10 a=0.2
20 x=120
30 DEG
40 c%=3
50 c1%=9
60 MODE 0
70 FOR x%=&C000 TO &F7FF STEP 2:POKE x%,128:NEXT
80 FOR x%=&F800 TO &FFFF:POKE x%,192:NEXT
90 GOSUB 310:ORIGIN 0,0,0,640,0,400
100 col=1
110 FOR kkk=1 TO 100
120 FOR kk=1 TO col
130 x=x-4
140 IF x=0 THEN a=-0.2
150 IF x=-120 THEN GOTO 290
160 d=0
170 PLOT 320,300,1
180 FOR t%= 90 TO 270 STEP 4
190 chk=INT(200+100*SIN(t%))
200 IF chk=293 OR chk=243 OR chk=156 OR chk=106 THEN d=1
210 IF chk=276 OR chk=203 OR chk=128 THEN d=0
220 IF d=1 THEN DRAW 320+x*COS(t%),200+100*SIN(t%),c% ELSE D
RAW 320+x*COS(t%),200+100*SIN(t%),c1%
230 NEXT t%
240 NEXT kk
250 col=col+a:c%=c%+1:c1%=c1%+1
260 IF c%=15 THEN c%=3
270 IF c1%=15 THEN c1%=3
280 NEXT kkk
290 GOTO 420
300 END
310 c=15
320 x%=0:y%=100:ORIGIN 380,200:PLOT -2,-2,c
330 d%=3-2*r
340 WHILE x%<y%+2
350 PLOT x%,y%:DRAW -x%,y%:PLOT y%,x%:DRAW -y%,x%:PLOT -x%,-
y%:DRAW x%,-y%:PLOT -y%,-x%:DRAW y%,-x%
360 IF d%<0 THEN d%=d%+4*x%+6: GOTO 390
370 d%=d%+4*(x%-y%)+10
380 y%=y%-2
390 x%=x%+2
400 WEND
410 RETURN
420 d=2:'Change variable D for speed
430 KEY 1,"call&bc02:mode 2:list"+CHR$(13)
440 ENV 1,14,-1,2:'Set up envelopes and variables
450 ENT 1,100,5,1
460 dr=1:cl=3:cl2=9:fr=1: xd%=-1:yd=-0.5:x%=30:y=15
470 FOR x=2 TO 14 STEP 2:INK x,6:INK x+1,26:NEXT:'Set inks t
o correct colours
480 INK 15,1:INK 1,2:INK 0,11:BORDER 11
490 WHILE mainloop=0
500 INK cl,6:INK cl2,26
510 OUT &BC00,12:OUT &BD00,48+INT(t%/256):OUT &BC00,13:OUT &
BD00,t% MOD 256:'Uses CRTC register 12 & 13 to set OFFSET fo
r hardware scroll
520 IF x%>35 OR x%<15 THEN IF xd%=-1 THEN SOUND 1,1500,0,1,1
,1 ELSE SOUND 4,1500,0,1,1,1 ELSE a=a
530 yd=yd-0.5:x%=x%+xd%
540 IF x%>35 OR x%<15 THEN xd%=-xd%:dr=-dr
550 t%=x%+(80*y):FOR a=1 TO d:CALL &BD19:NEXT:'Use FRAME ins
tead of CALL&BD19 on 664 & 6128
560 y=y+yd:IF y<11 THEN yd=2.5
570 IF yd=2 THEN SOUND 2,1000,0,1,1,1
580 cl=cl+dr:IF cl=15 THEN cl=3 ELSE IF cl=2 THEN cl=14:'Kee
ps control of INK values to give illusion of rotation
590 cl2=cl2+dr:IF cl2=15 THEN cl2=3 ELSE IF cl2=2 THEN cl2=1
4
600 WEND
```



Absolute Beginners

PART 3

Andrew Wilton continues his series on Basic programming that's so easy to understand, even our publisher reads it.

Last month, you typed in a program. It was a very simple program, and didn't do anything a compound command couldn't do. Here's another program for you, and this one's even simpler – just type...

```
10 CLS:PRINT"Amstrad Action"
```

...,remembering the space after the number 10. This doesn't do anything for the time being – program instructions aren't carried out until you type RUN. If you read the first instalment of *Absolute Beginners*, you won't actually need to run the program to work out what it does. The CLS clears the screen, and the PRINT command writes the message "Amstrad Action" on the top line. You can take another look at the program by typing LIST.

Once you've typed this in, and RUN it to check that it does work properly, you'll probably want to expand it a bit – after all, it's not very exciting as it is. Try typing in...

```
20 PRINT"from Future Publishing"
```

...and again you'll see that nothing happens. Now, type RUN. Syntax errors permitting, you'll see the screen clear and the message...

```
Amstrad Action
from Future Publishing
```

...appear at the top of the screen. Type LIST, and you'll get a look at this new, improved program. It should read...

```
10 CLS:PRINT"Amstrad Action"
20 PRINT"from Future Publishing"
```

In other words, the program consists of *both* the pieces of text you've typed in. These pieces of text are called *program lines*, and the numbers at the beginning are their *line numbers*.

We saw last time that the line number tells Arnold "This is a program line – don't obey it until you're told to." What we didn't cover was what any particular number at the start of a line means.

THE RIGHT ORDER

As far as Arnold is concerned, any instruction starting with a number is a program line. When a program line is typed in, instead of obeying the instructions in the line, he just adds them to the other program lines you've typed in so far – to the program, in other words. The question is, where does he put the new line in the list of lines you already have? This is where the line number comes in.

If you've typed in the example lines, and LISTed the program they formed, you'll notice a glaring omission. We've missed out a vital piece of the "Amstrad Action..." message. To fix this, type...

```
15 PRINT"The mould-breaking megazine"
```

...and LIST the result. You'll see that the new line has been fitted in between the other two, like this...

```
10 CLS:PRINT"Amstrad Action"
15 PRINT"The mould-breaking megazine"
20 PRINT"from Future Publishing"
```

...even though it was typed after both of them. This is because Arnold always deals with lines in numerical order, no matter what order you type them in. For another demonstration of this, try typing RUN. You'll get the message...

```
Amstrad Action
The mould-breaking megazine
from Future Publishing
```

...on your screen. There are a couple of points to note here. Firstly, the order in which you type the lines is of no importance whatsoever – once you've typed them in, Arnold LISTs and RUNs the lines according to their line numbers.

Secondly, the actual number of a line has no meaning of its own. I only gave the new line the number 15 so that Arnold would store it in between lines 10 and 20 – if I'd made it line 17 that would have worked every bit as well. Indeed, we could have called the first line we typed line 146, and the second line we typed line 673 – this would produce exactly the same results, provided that we gave the most recent line some number between the two. It's the order of the line numbers that matters, not the numbers themselves.

That's enough on programs for a while. We'll have a summary at the end of the article, but first here are the graphics I promised last issue.

PLOTTING

Last month's bit on inks and colours was the tough half of graphics. This month things should be a whole lot easier. Type in this little program...

```
10 CLS
20 PLOT 150,100,1
```

...and RUN it. The screen clears, and a tiny dot appears down near the bottom left-hand corner of the screen. Not very impressive, perhaps, but that's what PLOT does – it plots a point on the screen.

As you can see, there are three numbers after the command. Avid *AB* readers will recognise these as *operands* – those crucial pieces of extra information that tell Arnold how to perform the commands you give him. While PLOT tells Arnold that you want to plot a point, the operands tell him where and what colour you want it.

The first two operands carry the "where" information. They are the *co-ordinates* of the point. Don't be put off by the sound of the word – co-ordinates are very simple things. Just remember, we're trying to tell Arnold the position we want a point plotted at, using numbers rather than words. This is nothing difficult – we do this sort of thing all the time with map references. We describe the position of a place by saying how far east or west it is of some fixed point, and how far north or south.

If I take Somerton as my fixed point, I can describe the position of Edinburgh as some number of miles north of here and some other number of miles east. Provided you know where I'm measuring from and what units I'm measuring in, these two numbers tell you where Edinburgh is. Those two numbers are the co-ordinates of Edinburgh.

Screen co-ordinates are just the same. The fixed point is the bottom left-hand corner of the screen, so the co-ordinates measure how far to the right of this corner you want the point and how far above it. Thus PLOT 150,100,... will plot a point 150 units in from the left-hand edge and 100 units up from the bottom of the screen. The units don't actually have a name like "inches" or "metres" or anything, so we'll just keep calling them units.

The chief thing to notice about the units is that they're very small indeed. If you take a look at how close PLOT 150,100,... puts the point to the bottom left of the screen, you get some idea just how small they are. The screen is in fact 640 units wide and 400 units high. Using this knowledge, we can tell that eg PLOT 320,200,... will plot a point right in the middle of the screen.

We know that the first operand tells Arnold how far to the right we want the point to be, and that the second operand tells him how high we want it. Now it's time to look at the third operand. This simply tells Arnold what ink you want the point to be drawn in. Thus, PLOT 150,100,1 plots the point in ink 1, which will be bright yellow unless you've changed it with an INK command.

A STRAIGHT LINE

At this stage, it's hard to do anything very exciting with PLOT. A more powerful command is DRAW. Reset the machine – hold down <control> and <shift> and press the <esc> key – type in...

```
10 CLS
20 DRAW 150,100,1
```

...and RUN it. An important point to note here is that resetting the machine destroys the previous program. In this case that was what we wanted to happen, but this won't always be so. Before you reset the machine you should always be sure you won't mind losing the program you were working on.

When you run the program you'll see that it draws a line between the bottom left of the screen and the point we were plotting at before. Now, try running the program again. This time, it behaves just like the PLOT program we started off with – it just draws a single dot on the screen. Why the difference?

The graphics part of Locomotive BASIC acts as if Arnold is using an invisible pen. When you switch on or reset the machine, this imaginary graphics pen starts off at the bottom left-hand corner of the screen. PLOT moves the pen to a given point and makes a mark there. DRAW, on the other hand, moves the pen to a point leaving a trail as it goes – a straight line from where the pen was to where you told Arnold you wanted it.

The first time you ran the program the pen was in the bottom left corner, because you'd only just reset the machine. The DRAW command moved the pen to the point 150 right, 100 up – and the line you got was the trail it left. The second time you ran the program, the pen was already *at* the point 150 right and 100 up, so the DRAW command didn't move the pen at all. It just made a little mark where Arnold "put pen to paper", ready to mark the trail. Arnold doesn't check to see that the DRAW command really is going to move the pen. He leaves that up to you.

MOVING THE PEN

When we use a DRAW command, we use two of the operands to tell Arnold where we want the line to end. As for where we want it to start, that's a bit harder. The graphic pen must, if you think about it, already be at your chosen starting point before you give Arnold the DRAW command.

The question is, how do we get the pen to the chosen starting point? Well, a PLOT command will do the trick – remember how I said earlier that PLOT moves the pen to a point and then makes a mark there? So, if you PLOT at the start point of your line and then DRAW to the end point, the mark made by the PLOT command will normally be overwritten by the DRAW line anyway.

A better general way is to use the MOVE command. This is like PLOT, except it doesn't make a mark at its destination – it just moves the pen. Without resetting the machine – with the program still intact, in other words – type...

```
15 MOVE 80,60
```

Before you do anything else, try to work out where this new line 15 is going to fit into the program. Then type LIST, to see if you got it right. Now, RUN the program. You should get a straight line running from the point 80 right, 60 up to the point 150 right, 100 up. The two operands of MOVE are co-ordinates – they tell Arnold where you want the graphics pen moved to.

You might have noticed one important difference between MOVE on the one hand, and PLOT and DRAW on the other – namely, that MOVE only takes two operands. The third operand is missing, but this does make sense if you think about it for a moment. After all, the third operand of PLOT and DRAW tells Arnold the number of the ink you want used in the graphic pen. Since MOVE doesn't actually mark the screen at all, there's no real need to specify what ink you want in your graphics pen.

Having said that, I should just make a couple of points. Firstly, you can actually leave out the third operand of PLOT or DRAW. If you type PLOT 150,100 for example, Arnold takes that to mean "move the pen to 150 right, 100 up and make a mark there with whatever ink is already in the pen". In practice, this means the last ink you specified in a PLOT or DRAW command. There are times when this can save you some effort, but for now you're much better off using the third operand. Secondly, 664 and 6128 users can use a third, ink-specifying operand with MOVE. This isn't something you'll find very useful for the time being.

SUMMARY – PROGRAMS

A PROGRAM LINE is any piece of text you type in which starts with a number. The number that it starts with is called the LINE NUMBER.

When you type in a program line, Arnold stores it away along with any other lines you've previously typed in. This stored collection of lines is your PROGRAM.

You can view your program by using the LIST command, or make Arnold obey the instructions in the program by typing RUN.

Program lines are stored, listed and obeyed strictly in numerical order, starting with the lowest numbered line and working upwards. The order in which they're typed in is of no significance at all.

Resetting the machine will wipe out any program you've typed in – so be careful!

SUMMARY – GRAPHICS

A point on the screen is specified by its CO-ORDINATES. These are numbers, the first indicating how far the point is to the right of the screen's left-hand edge and the second indicating how far it is above the screen's lower edge. Co-ordinates can range from 0 to 640 units left-right, and from 0 to 400 units bottom to top.

The GRAPHICS PEN is the imaginary tool which is used for plotting points and drawing lines.

PLOT moves the pen to a specified location and plots a point there. It takes three operands: the first two are the co-ordinates of the point the pen is to move to, and the third is the number of the ink the point is to be plotted in.

DRAW moves the pen to a specified location, leaving a straight-line trail. As with PLOT it takes three operands, the first two being co-ordinates and the third being the ink-number for the line.

MOVE moves the pen to a specified location, without marking the screen at all. It takes two operands, being the co-ordinates of the point the pen is to be moved to.

FIGHTING FIT

That's what you'll need to be if you win the Melbourne House Kung Fu games that we are giving away!

Two games on one disc: that's what we are giving away in this competition - and thirty copies too. The games are *Fighting Warrior* and *The Way of the Exploding Fist,* and will run on your 664, 6128 or 464 with disc drive.

2 BESTSELLERS ON 1 DISK!
Amstrad CPC
Melbourne House
Amstrad CPC
BEAT THIS
Fighting Warrior
The way of the

I warn you, both games are pretty violent. *The Way of the Exploding Fist* has you in a Japanese setting in front of a Buddhist-style temple. You battle your opponent with 19 different fighting moves from 'novice' to tenth 'dan'. Simulation is in 2D but the action is fast and furious.

By way of contrast, *Fighting Warrior* is set in Egypt, under the shadow of the Pyramids. You are the Fighting Warrior, and have to battle your way past a series of assorted demons to rescue the beautiful princess. You are armed with a sword and, I warn you, the sound effects are pretty realistic!

The Competition:

All you have to do to win is answer the following four questions correctly. The first thirty correct answers out of the hat on Friday 18th July will receive copies of the Melbourne house disc.

Entries:

The closing date for the competition is Friday July 18th. Entries should be on a postcard or the back of a sealed envelope. The address is: **Fighting Fit, Amstrad Action, The Old Barn, Somerton, Somerset TA11 7PS.**

The Questions:

1. What was the name of the wandering hero in the TV series *Kung Fu*?
   - a. Yoo Flung Dung
   - b. Ching Chow Mein
   - c. Kwai Chang Kane
2. Who played the hero in the series?
   - a. David Carradine
   - b. Humphrey Bogart
   - c. Richard Chamberlain
3. What was the hero's nickname?
   - a. Butterfly
   - b. Grasshopper
   - c. Fred
4. Which of the following are Martial Arts?
   - a. Kendo
   - b. Shao Mai
   - c. Chop Suey

Featuring

Hi Score

the world's greatest Amstrad game-players

Plenty of games to set your sights on this month with some really tough battles for the top spot under way. Both *The Covenant* and *Get Dexter* from PSS are the subject of close struggles which look set to continue. The two Elite games *Bombjack* and *Commando* are also getting tight at the top.

Two games that have still to see the best of the action are *Batman* and *Bounder* but you can expect to see them get busy next month. The Art Department has made another determined effort to get on the score tables, with Trev getting the ball rolling on *Shogun* with a very impressive score that will take some beating.

Ahhh!
89,280 (Level 55) Lee Healy, Walsall.
38,140 Dene Graber, Bedford.
28,290 Shahan Saier, East Ham.

Airwolf
2,228 Steven Walden, Cheltenham.
2,048 Ryan Harkin, Limavady.
1,703 Mark Dewey, Hoddesdon.

Alien Break-In
887,120 Iain McKinnon, Glasgow.
292,164 Paul Mackenzie, Lenzie.
290,680 Graeme Taylor, East Kilbride.

Alien Highway
82,730 Jeff Edwards, Aberdeen.
75,280 Bob Wade, Somerton.

Amsgolf
50 shots Robert Cairns, Aldershot.
51 shots Dauel Elkington, Solihull.
51 shots Mark Lampon, Ilford.

Android One
17,680 David Litherland, Bolton.
16,580 David Burns, Telford.
11,460 David Cobane, Wythenshawe.

Android Two
36,480 Stephen Raggett, Westbourne Park.
11,450 Paul Clarke, Barnsley.
9,720 Paul Rushton, Market Drayton.

Batman
8,768 Bob Wade, Somerton.
8,524 Steve Phillipps, Leicester.

Battle Beyond the Stars
26,600 Andrew Fry, Penhill.
17,650 Flemming Pedersen, Lemvig.
16,400 Michael Clark, Newton Grange.

Battle of the Planets
897 John Carter, Sheffield.
458 Paul Edwards, Stevenage.

Beach-Head
124,300 Ian Mackay, Armthorpe.
124,300 Rik, Cumnor.
124,200 Paul Stagg, Grantham.

Binky
23,275 Paul Stagg, Grantham.

Blagger
72,200 (Level 14) Stuart Mozley, North Anston.
59,630 Alan McArdle, Newcastle.
56,525 Antony Critchley, Bracknell.

Bombjack
449,800 Oliver Dennis, London.
396,020 Roger Wilson, Blackburn.
369,500 Bob Wade, Somerton.

Boulderdash
1A-5P (51,262) Michael Varney, Battle.
1A-5P (48,786) John Carter, Sheffield.
1A-3K Paul Gill, Cheadle.
1A-3K James Gildea, Airdrie.

Bounder
202,600 Thomas Hearn, Gunthorpe.
130,020 Gerry Hughes, Cranleigh.

Bounty Bob Strikes Back
216,129 Ronnie Agnew, Liverpool.
101,000 (Level 11) Colin Davis, Dumbarton.
62,140 (Level 5) Shazad Rana, Manor Park.

Brian Bloodaxe
13,820 Stewart McCone, Pontefract.

Brian Jack's Superstar Challenge
4,819 David Millar, Johnstone.
4,789 George Reaves, Bradford.
4,673 Scott Logan, Kirkmuirhill.

Bruce Lee
(Score for destroying wizard once)
65,950 Andrew Duff, Tain.
65,370 John Raper, Bishop Auckland.
63,475 D Maynard, Forest Row.

Cauldron
110,025 Nick Turner, Bridgnorth.
101,575 Steven Parkinson, Horbury.
70,750 Ralph Turner, Newport.

Chiller
8,700 Ian Grainger, Wingate.
7,900 Lloyd Butler, Birmingham.
7,315 Ian McKinnon, Glasgow.

Chimera
5,915 Clifford Fenton, Ripley.
5,206 GM Gatter, London.
5,077 Richard Pemberton, Charlton.

Chuckie Egg
6,081,080 (Level 258) Alan Steele, Didcot.
3,590,240 (Level 185) Andy McCammont, Darlington.
572,580 (Level 40) Carl Mollart.

Codename Mat 1
1,162 Nick Allen, Hilton.
1,142 Craig Bailey, Hatfield.
1,106 George Reaves, Bradford.
1,106 Michael Dunse, Bonnyrigg.

Codename Mat 2
52,100 Kelvin Clarke, Telford.
49,700 Richard Ormson, Bury.
33,860 Paul Clarke, Barnsley.

Combat Lynx
943,700 Andrew Fry, Penhill.
910,300 Owen McGarvey, Glasgow.
500,000 Karsten Jensen, Aalborg.

Commando
311,600 Nick Birmingham, Romsey.
138,950 William Dunsmuir, Glenrothes.
121,570 Richard Ormson, Bury.

Confuzion
590,005 (Level 66) Lamaan Ball, Cowley.
147,145 (Level 31) Duncan Ellis, Ilkley.
139,655 Jason Grandin, Penylan.

The Covenant
55,448 Stuart Thorn, Bristol.
55,416 Andrew Black, Brampton.
55,384 David Smith, Chipping Sodbury.

DT's Decathlon
(One day only)
155,870 JP Gorman, Edmonton.
150,680 Graeme Taylor, East Kilbride.
148,760 Tim Gurney, Prestatyn.

DT's Supertest
(Combination of day one and day two – once each)
88,890 Mark Horton, Greenford.
59,944 John Harding, Chippenham.
46,196 Stuart Wood, Wadesmill.

Death Wake
173,102 Jonathan West, Romford.

Defend or Die
4,340,000 Simon Sutton, Cheltenham.
3,500,000 Daryl Ward, Wigston.
2,571,925 Paul Hyett, Cheltenham.

Devil's Crown
63,170 D Paterson, Tillicoultry.
62,540 S Gentle, Two Mile Ash.
46,760 Martin Evenett, Southbourne.

Don't Panic
12,000 Kathryn Collin, Dunfermline.
8,150 D Collin, Dunfermline.
2,150 Craig Thomson, Burnmouth.

Doors of Doom
70 Gerry Hughes, Cranleigh.

Dynamite Dan
3,000 Iain McKinnon, Glasgow.
2,987 Colin Lawless, Cabra.
2,169 Richard Burton, Helston.

Electro Freddy
4,115 Jerome Chui, Caerphilly.
4,035 Alvin Thompson, Hebburn.
3,410 Thomas Tofield, Ashford.

Er*bert
142,850 Graham Thomas, Rainham.
132,800 Lawrence Smith, Newport.
132,300 Julian Cater, East Sheen.

Everyone's a Wally
3,150 Antony Critchley, Bracknell.
3,000 A Grimshaw, Blackburn.
2,130 Paul Bennett, Rhondda.
2,130 Andrew Purdy, Wardley.

Fantastic Voyage
58,350 Alex Gwinn, Springfield.

Fighting Warrior
348,110 David Cobane, Wythenshawe.
206,090 Rick Artes, Horsham.
202,790 David Hammond, Fulwood.

Fireant
54,700 David Sizmur, Bourne.
54,000 David Cobane, Wythenshawe.
39,600 Gary Brickley, Fife.

Frankie goes to Hollywood
88,900 (95%) Karen Brett, Folkestone.
75,000 (79%) Toby Kayes.

Fruity Frank
56,200 J Brown, Westfield.
40,600 Alvin Thompson, Hebburn.
36,010 Andy Keeble, Bromley.

Galactic Plague
645,900 Gareth Jones, Whitstable.
403,150 Matthew Healy, Sligo.
222,810 Clint Yarwood, Amble.

Gauntlet
201,500 Jonathan Shaw, Liskeard.
117,350 Andrew Powell, Darlaston.
42,640 David Schofield, Retford.

Get Dexter
133,800 P Napolitano, Slough.
130,500 Paul Mountford, Blackpool.
128,200 Julian Page, Shrewsbury.

Ghostbusters
(One game from $10,000 account)
66,800 David Hammond, Fulwood.
49,500 L Warren, Alton.
42,700 Bryan James, Clevedon.

Ghouls
37,547 Robert Booty, Solihull.
11,063 David Burns, Telford.
8,640 Peter Wright, Stourport.

Gilligan's Gold
623,931 David Finlayson, Dundee.
598,100 Michael Clark, Midlothian.
501,750 Ian Leitch, Blandford Camp.

3D Grand Prix
17,632 Shaun Freeman, Gosport.
15,960 Graham Pemberton, Sheffield.
15,023 Hugh Lacey, Corsley.

Grand Prix Rally 2
85,380 Geoff Kerslake, Woodham Ferrers.
83,184 David Dunnigan, Lytham.
70,690 FJ Griffith, Birkenhead.

Gyroscope
38,620 Simon Dennis, Menston.
38,140 George Reaves, Wibsey.
28,510 Lee McMahon, Manchester.

Harrier Attack
915,640 Ian Amis, Lewisham.
770,450 Graham Ross, Devizes.
725,600 Simon Beldon, Pudsey.

Haunted Hedges
299,470 Claire Johnson, Sutton Coldfield.
274,600 Dominic Gourlay, Mansfield.
112,670 Paul Stagg, Grantham.

Highway Encounter
242,100 Stephen Raggett, Westbourne Park.
214,900 Graeme Taylor, East Kilbride.
148,370 RG Messenger, Perth.

Hitchhiker's Guide
325 Kenneth Morrow, Westhill.

Hunchback
1,613,700 Andrew Powell, Darlaston.
1,508,000 Michael Clark, Midlothian.
1,400,000 Daryl Ward, Wigston.

Hunchback 2
17,100 Jason Carpenter, Abernethy.
9,000 Andrew Purdy, Woodley.
6,250 Steven McDougall, Aberdeen.
6,250 William Gatrell, Bangor.

Hypersports
211,295 David Cobane, Wythenshawe.
182,531 JP Gorman, Edmonton.
159,582 Lawrence Smith, Newport.

Jet Boot Jack
324,100 Alison Hall, Ashford.
258,900 David Finlayson, Dundee.
161,850 Alan Watson, Inverness.

Juggernaut
48,900 Eric Henry, Drogheda.
9,500 Michael Speers, Donoghadee.

Killer Gorilla
380,500 Andrew Powell, Darlaston.
375,000 Adrian McGivern, Dorchester.
345,400 Christopher Devlin, St Helens.

Kong Strikes Back
648,600 Lawrence Smith, Newport.
646,300 Mark Brayshaw, Leeds.
535,600 Claire Johnson, Sutton Coldfield.

Kung Fu
1,092 Janson Ragon, Gravesend.
964 Peter Mintram, Fawley.
900 Iain McKinnon, Glasgow.

Laserwarp
368,730 Denis Condren, Filey.
207,000 Michael Wilkes, Stourbridge.
198,860 T Grogan, Blackburn.

Locomotion
15,543 Christopher Eng, London.
8,401 Mike Drury, Swinton.
2,558 Michael Downie, Dalston.

Macrocosmica
11,974 Jennifer Cleal, Pinner.
349 Mr Talbot, Andover.

Manic Miner
250,112 Wayne Learoyd, Bramley.
97,722 Jack Condon, Dublin.
94,989 Martin Luise, Solihull.

Minder
£35,095 Mark Wagner, Pinner.
£24,364 George Reaves, Bradford.
£22,096 Mark Tozer, Canvey Island.

Monty on the Run
4,350 Martin Holland, Scholes.

Moon Buggy
159,100 Lawrence Smith, Newport.
127,310 Patrick Grant, Holbrooks.
115,000 Neill Waugh, Thetford.

Moon Cresta
77,480 Shaun Bourne, Oldham.
29,620 Roger Wilson, Blackburn.
25,170 David Huff, Covent Garden.

Mr Freeze
16,870 Stuart Hutchinson, Reading.
16,240 Peter Wright, Stourport.
13,870 Jamie Thomson, Leighton Buzzard.

Mutant Monty
48,150 Marcus Passant, Perton.
45,350 Phil Wand, Brentwood.
44,950 A Wagstaffe, Whitchurch.

Nightshade
1,222,000 Julian Bunn, Newport.
846,000 Paul Mountford, Blackpool.
797,000 Christopher Hoare, Denham.

Nomad
12,790 Adrian Sill, Skellow.
3,700 Bryan James, Clevedon.
2,995 Jeremy Clatworthy, Woodford Bridge.

Number One
1,362 Graeme Taylor, East Kilbride.
1,222 JF Scott, Longridge.
1,200 Richard Ormson, Bury.

Obsidian
13,600 Daragh Ward, Dublin.

One Man and his Droid
15,594 Simon Boot, Witham.
15,550 Noel McVea, Bangor.
15,420 Stuart Montgomery, London.

On the Run
74,110 Daniel Singerman, Southampton.
74,060 Patrick McCorry, Belfast.
60,000 Ranjit Singh, Queen's Park.

Pinball Wizard
42,715 Craig Keene, Thornton Heath.
41,075 Stephen Gray, Claverton Down.
31,775 Roger Wilson, Blackburn.

Ping Pong
10,740 Sei Kin Chan, Belfast.
9,700 Steven Walden, Cheltenham.
6,800 Steven Parkinson, Horbury.

Punchy
1,132,320 Mark Salt, Irlam.
965,000 Michael Bradley, Blarney.
235,990 Alan Jackson, Wolverhampton.

Raid
3,119,050 William Jenkins, Cramlington.
1,502,050 Bryan James, Clevedon.
1,352,450 Peter Brady, Pontefract.

Rambo
806,460 Philip Routledge, Sunderland.
497,080 Graeme Taylor, East Kilbride.
431,560 Ronnie Agnew, Dovecot.

Rock'n Wrestle
200,300 Janson Ragon, Gravesend.
112,900 Alex Gruet, Byfleet.
50,800 Gerry Hughes, Cranleigh.

Rock Raid
32,780 Stephen Gray, Bath.
32,580 Ian Casson, Rugeley.
30,640 Shafqat Rasul, Alloa.

Saboteur
40,000 Richard Strait, Woking.
39,000 Andrew Barratt, Scunthorpe.
39,000 Steven Dinsdale, Scunthorpe.

Sabre Wulf
729,485 Paul Stagg, Grantham.
602,190 D Maynard, Forest Row.
591,250 Craig Thomson, Eyemouth.

Shogun
86 Trevor Gilham, Somerton.

Sir Lancelot
82,240 (Level 148) Simon Davies, Filey.
56,830 GJM McGouran, Birmingham.
15,400 (Level 28) Steven Sellwood, Warnham.

Skyfox
272,500 A Porter, Peterborough.
113,500 CD Ellis, Millbrook.
41,700 Chris Friedman, Glenrothes.

Sorcery
Many scores over 97,000

Sorcery Plus
208,317 WK Roberts, Felton.
154,460 Joanne Sturton, Orpington.
138,917 Christoper Hoare, Denham.

Space Hawks
79,680 Dominic Hegarty, Cork.
77,550 Mark Wagner, Pinner.
77,080 David Baker, Cirencester.

Spannerman
100,900 David Finlayson, Dundee.
86,900 Julian Cater, East Sheen.
84,900 Andrew Brooks, Warrington.

Spindizzy
195 jewels Julian Page, Shrewsbury.
150 jewels Lawrence Smith, Newport.
119 jewels Ian Hopkinson, Wool.

Splat
22,535 David Cobane, Wythenshawe.
13,210 Roy Williams, London.

Star Avenger
20,080 Nick Allen, Hilton.
17,330 Kevin Bradshaw, Fife.
16,810 Christopher Eng, London.

Starion
38,305 Shafqat Rasul, Alloa.
32,911 Sean Brady, Eltham.
32,416 Robert Barclay, Desborough.

3D Starstrike
(One pass through all stages at any level)
809,200 Ian Casson, Rugeley.
800,000 Chris Suraway, Chippenham.
796,400 Gerry Hughes, Cranleigh.

Strangeloop
27,997 Julian Cater, East Sheen.
27,862 Paul Stagg, Grantham.
18,747 Paul Newcombe, Birkdale.

Super Pipeline 2
(First 16 pipes)
200,940 David Parkinson, Horbury.
146,035 Rik, Cumnor.
139,350 Roy Williams, Acton.

Supersleuth
35,800 Brian Heavey, Irvine.
20,300 Donald Sharkey, Scunthorpe.

Survivor
436,300 RF Hemmings, Swindon.
367,500 Paul Edwards, Stevenage.
302,800 Eddie Filkins, Runcorn.

Tankbusters
18,300 Ian Boffin, Sunbury-on-Thames.
1,350 Kelvin Clarke, Telford.
890 Darren Ellis, Stanley.

Tau Ceti
22,892 (20 rods) Rhys Jones, Orton Goldhay.
20,885 (20 rods) Paul Guest, Telford.
20,803 (20 rods) Richard Woods, Mablethorpe.

Thing on a Spring
21,393 Ronnie Agnew, Dovecot.
14,800 Steven Dinsdale, Scunthorpe.
13,917 Lawrence Smith, Newport.

TLL
89,580 (Level 28) A Riley, Easy Molesey.
88,130 (Level 28) RS Dargie, Penarth.
56,100 (Level 18) Martin Whitsed, Spalding.

Turbo Esprit
15,960 Graham Pemberton, Sheffield.
12,120 Michael Pidduck, Broadstairs.
10,750 Darren Pack, Denmead.

Way of the Exploding Fist
Score after beating 2 men on 10th Dan)
89,300 Chris Secker, Nunthorpe.
88,800 Janson Ragon, Gravesend.
85,000 Paul Hopkinson, Wool.

Who Dares Wins 2
368,980 Brian Hoyland, Conisbrough.
275,660 Andy Simmonds, Ashford.
153,550 Daragh Ward, Dundrum.

Wizard's Lair
198,860 Stephen Raggett, Westbourne Park.
168,385 Adrian Leigh, Stockport.
152,000 Paul Lewis, Northwich.

Wriggler (Blaby)
6,986 David Cobane, Wythenshawe.
6,875 Gordon Scott, Stourbridge.
6,400 Chris Suraway, Chippenham.

Yie Ar Kung Fu
(Score for defeating first 8 opponents)
459,960 Paul Jolleys, Hindley Green.
454,920 Ian Mackay, Armthorpe.
454,860 Andrew Cavender, Peterborough.

Zorro
999,990 Neal Thompson, Co. Down.
210,250 Colin Winter, Grantham.
44,600 Lee McMahon, Manchester.

SPECIAL GUIDELINES

On the following games you must enter your score according to these guidelines:

BOULDER DASH: level reached, not score.

BRUCE LEE: score for destroying the wizard once.

DT's SUPERTEST: combined scores for days one and two played through once only.

GHOSTBUSTERS: score achieved after a single game starting from a $10,000 account limit.

3D STARSTRIKE: highest score for one pass through all stages at any level.

SUPER PIPELINE II: highest score after completing 16 screens.

TAU CETI: rods collected.

WAY OF THE EXPLODING FIST: highest score after defeating two opponents on tenth dan.

YIE AR KUNG FU: highest score for defeating first eight opponents.

YOU can enter YOUR high-scores and win the chance of nationwide fame in these pages by using the High Score section of our All-in-One Action Form. Cheats, beware. If your score is challenged and you can't validate it, you expose yourself to public humiliation and shame!

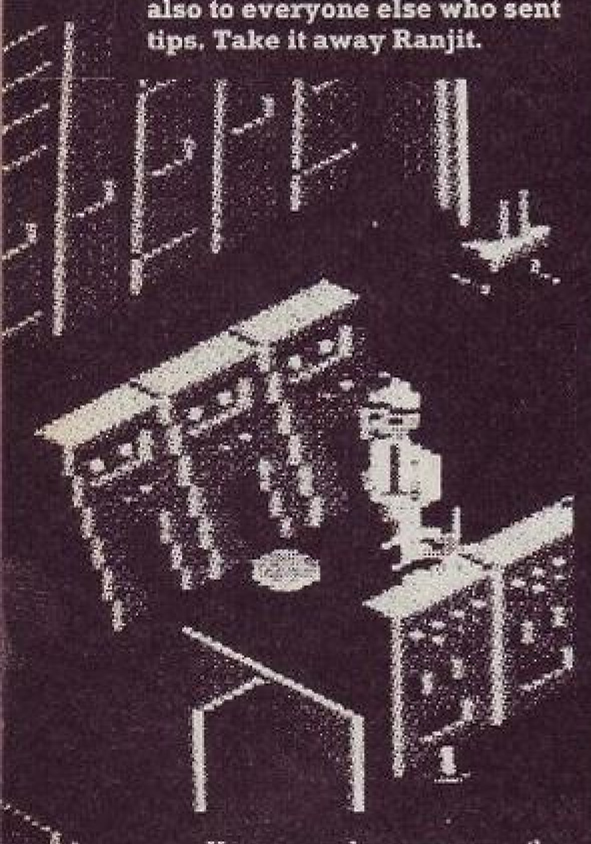
JULY CHALLENGE

Score challenged: 15,860 on *Thing on a Spring* by Andrew Barratt.

Challenger and reason: Steven Dinsdale. He used the cheat mode. I was there. He's my mate. Well was.

Get Dexter!

Ranjit Singh from London NW6 has cracked the PSS/Ere classic and seen the end game sequence. From what he tells us it's well worth seeing. In addition he's supplied us with tips on playing the game. Thanks also to everyone else who sent tips. Take it away Ranjit.



You can bounce on the beds (this looks good!) and don't forget when jumping or falling you can control your direction. This means you can choose a landing point. Don't bounce on them too much though as they will eventually break making them unusable and losing you 10% energy.

If you drop a bottle of wine in front of the punk he will keep walking at it. This happens with the nurse if you drop the flowers in front of her and with some blue monsters if you drop the magnet. Blue monsters can also be frozen for a period by dropping the red saucers. Don't waste them because they are especially useful in the scientists rooms.

To kill the monsters you must drop a specific object in front of them. The orange salt cellar thing kills ducks and "space invaders". The bottle of acid (white with red skull and crossbones on it) kills clockwork ghosts whose heads bob up and down and barrel robots. Small green buttons kill dogs, clockwork ghosts, pyramid robots and the garden rollers.

Coloured doors are opened using the corresponding security pass while grey doors are activated by stepping on floor pads. To find out if a floor pad are safe recall Scooter onto it, if he bounces on his head it isn't safe.

When looking for objects and doors make sure you move everything because doors may be hidden behind furniture and objects stashed under beds or benches. If you're having trouble getting the codes then try dropping a syringe in front of a scientist, it has a very interesting effect.

The final room where things usually drop on your head is a tough one but with the code and some directional thought you'll work it out.

Poke methods

This is the section where we explain how to input the majority of the pokes using two types of method.

Method 1: Type in the listing. Rewind the game tape. Type RUN followed by pressing enter. Follow on screen prompts to load the game.

Method 2: The tape header/loader/title screen, comprising usually of one or two data blocks has to be skipped. Rewind the game tape. Type in CAT followed by enter and play the tape. Watch the screen and a message will come up

Found FILENAME block 1 OK

where FILENAME will be replaced by the name of the loading section. The next message that appears will be the main program appearing in the same style.

Found MAINFILE block 1 OK

where the MAINFILE will be different for each game. Note the point on the tape counter at which this second file appears. Stop the tape and rewind to just before that point. Type in the program and RUN it. Then press play on the tape deck

Wreckless Roger

This poke arrived anonymously on my desk and gives infinite energy on the Blaby shoot-em-up. Entered using Method 2 to miss the first block.

```
10 MODE 0:MEMORY 5999
20 FOR i=0 TO 15:READ a:INK
i,a:NEXT
30 DATA 0,2,14,20,4,8,17,3,6
,15,9,18,24,10,13,26
40 LOAD"!",6000
50 POKE 8201,0:POKE 8202,0
60 CALL 6000
```

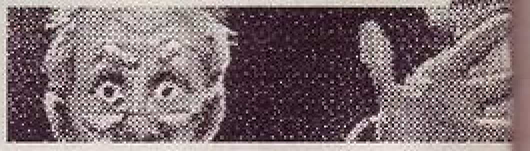
CHEAT MODE

Bob Wade checks out your tips, pokes and game-busting ploys. The best ones win a tenner – so why not send YOUR latest gem to: Cheat Mode, Amstrad Action, Somerton, Somerset TA11 5AH

TOMBSTOWNE

Any one having trouble with the Amsoft arcade adventure will appreciate these tips from Simon O'Connell and Emmet Masterson from Sidcup.

1. To mend the stairs get the piece of stairway from the library.
2. To get past the rats. Get the stool from the lounge and drop it under the kitchen table. Jump on table and get cheese. Take the now baited rat trap to "Beware the rats".
3. The key in the bedroom allows you to exit the castle.
4. The cross in the study kills the witch in "Rising concern", allowing you to get the balloon.
5. Take the balloon to the bathroom where you will float up to get the grey key.



Rambo

We've got both tips and a poke for Ocean's muscle bound psychopath. The poke is from Phil "You can't keep a good pokester down" Howard from Mapperley while the tips were the pick of the bunch we receveived and come from Christian Valeri from Ramsgate. The poke is entered using Method 1.

1. Go to temple using knives, get machine gun and then switch to arrows.
2. Go straight up until you get to the camp. Go right and then up again until you get to the first gate on the right hand fence. Blast through it using exploding arrows.
3. Make your way over to the left side of the camp blasting anything that gets in the way. Switch to knives and get POW.
4. Switch back to exploding arrows and blast your way north through the trees. When you reach the clear area sweep it until you find the helicopter and get in.
5. Head back down to the camp and slightly to the right to find the landing pad.
6. Land and go south-west to the "corrugated" hut that can't be blown up. Switch to knives and release the prisoners. Go back a second time to release more prisoners.
7. Return to chopper, collecting the white grenade box on the way and fly north.
8. You'll fly over another camp – ignore this and wait for your base whichappears after you've flown over a large expanse of water. While doing this you're pursued by the gunship. Don't worry about destroying this just concentrate on avoiding it.

```
10 DATA 21,9c,8e,36,00,23,36
,00,23,36,00
20 DATA 21,ab,8e,36,00,c3,00
,8f,21,2d,22
30 DATA 36,f8,21,40,20,11,40
,00,01,f2,01
40 DATA ed,b0,21,40,00,e5,21
,00,bb,e5,21
50 DATA f2,01,e5,21,07,b8,e5
,21,bb,02,e5
60 DATA f1,21,ea,b1,11,d9,b1
,f3,c9
70 MEMORY &2000
80 FOR x=&9500 TO &953F
90 READ a$
100 POKE x,VAL("&"+a$)
110 NEXT
120 LOAD""
130 CALL &3A6A
140 LOAD"!",&2040
150 CALL &9513
```

Devil's Crown

Lorna Paterson from Tillicoultry has a quick tip for the Probe game on how to complete it. Three treasure chests can be revealed by inserting a key in a padlock.

ONE MAN and his DROID

A nifty one liner from Justin Cole of Colchester to give infinite time. Entered using Method 1.

```
10 MEMORY 4999:MODE 1:LOAD"o
m":POKE &24C2,0:CALL 5000
```

N.O.M.A.D

Is there no limit to Phil Howard's poking? This time you've got infinite lives on the colourful Ocean game. Entered using Method 1.

```
10 DATA 21,3a,22,36,00,c3,dc
,3a,21,40,22
20 DATA 36,25,23,36,9b,21,40
,20,11,40,00
30 DATA 01,06,02,ed,b0,21,40
,00,e5,21,00
40 DATA bb,e5,21,06,02,e5,21
,07,b8,e5,21
50 DATA bb,02,e5,f1,21,ea,b1
,11,d9,b1,f3
60 DATA c9
70 MEMORY &2000
80 FOR x=&BE00 TO &BE37
90 READ a$
100 POKE x,VAL("&"+a$)
110 NEXT
120 LOAD""
130 CALL &3A6A
140 LOAD"!",&2040
150 CALL &BE08
```

Thing on a Spring

Emmet Masterson and Simon O'Connell from Sidcup have sent in tips on the Gremlin cutesy including one that we've had from umpteen other sources. This is that if you hold down the keys THING on the title screen the border will change colour and you'll have infinite oil. The guys also have some other suggestions though.

Make sure you complete each screen in order, starting from the first floor and working down. On each floor work left to right and then back again. This is essential because some of the presents allow you to go up escalators, fly off trampolines and wizz around the screen in a small space capsule.

On the third floor, first room, if you cannot find the exit it is situated under the collapsible floor next to the two televisions. On the final screen make your way towards the off switch. When you collect it it will set off two rays and the evil goblin will get trapped and die.

Chiller

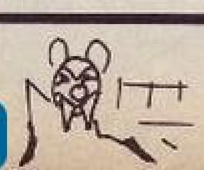
Another one from Simon Goodwin of Middlesbrough that gives you infinite strength. Entered using Method 2 to skip the first block of the program.

```
10 MODE 0
20 OPENOUT"d"
:MEMORY &7FF:CL
OSEOUT
30 LOAD"!"
40 POKE 5550,0
50 CALL &800
```

Sabre Wulf

Frustrated disc owners will appreciate this poke from Peter Featherstone of Leeds that gives you infinite lives and stops creatures materializing in the *They Sold a Million* disc version of the game. Just type in the program, put the disc in the drive and RUN the program (don't worry about the screen corruption.)

```
10 MODE 2
20 MEMORY 4863
30 LOAD"SABGRF.SBF"
40 LOAD"SABPRG.SBF",49152
  50 POKE 56672,0
 60 POKE 58173,0
70 CALL 49152
```



Who Dares Wins II

Andy Simmonds and his Dobermanns from Ashford have an interesting method for beating the all action game from Alligata. Here it is in his own words.

All you have to do is run like heck, zig-zagging like billio (SAS term for evading the flak) to the blockhouse. Run right inside, turn round and start firing. You can kill all the enemy by shooting them in the back, legs and other parts of their anatomy.

Frankie goes to Hollywood

Tips on the Ocean pop arcade adventure have been received from David Smithers from Harrow and Martin Ash from Basingstoke. We've combined the two to give you some help with the individual rooms and sections in the game.

1. The ZTT room. Wear the flak jacket and you'll be unharmed by the bullets. The puzzle has to be worked out logically with each button having its own effect. Work out which ones put a puzzle piece in and which ones put a piece in but also remove others.
2. The Terminal room. You'll need a security pass and an undamaged floppy disc to activate one of the computers.
3. Sea of Holes. Go through each hole in order from right to left.
4. Cybernetic Breakout. Eating a pleasure pill here will halve your pain or double your pleasure and if you stand still the object will pass through you.
5. War Room. A wedding ring protects you here.
6. Raid over Merseyside. Position the gun at about halfway down the display and just keep firing.
7. Talking Heads. Keep the Soviet flag just beneath yours when possible. Alternatively head for the top of the game and keep firing until the enemy bullets reach you. Then move down until the other flag moves down and then head back to the top.
8. Shooting Gallery. Shoot the targets as quickly as possible and remember to let the target reload by sinking to the bottom of the screen. Heads just above the reloading area can be shot twice if you wait until they have almost fully appeared before shooting it the first time.

Advantage

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Gyroscope

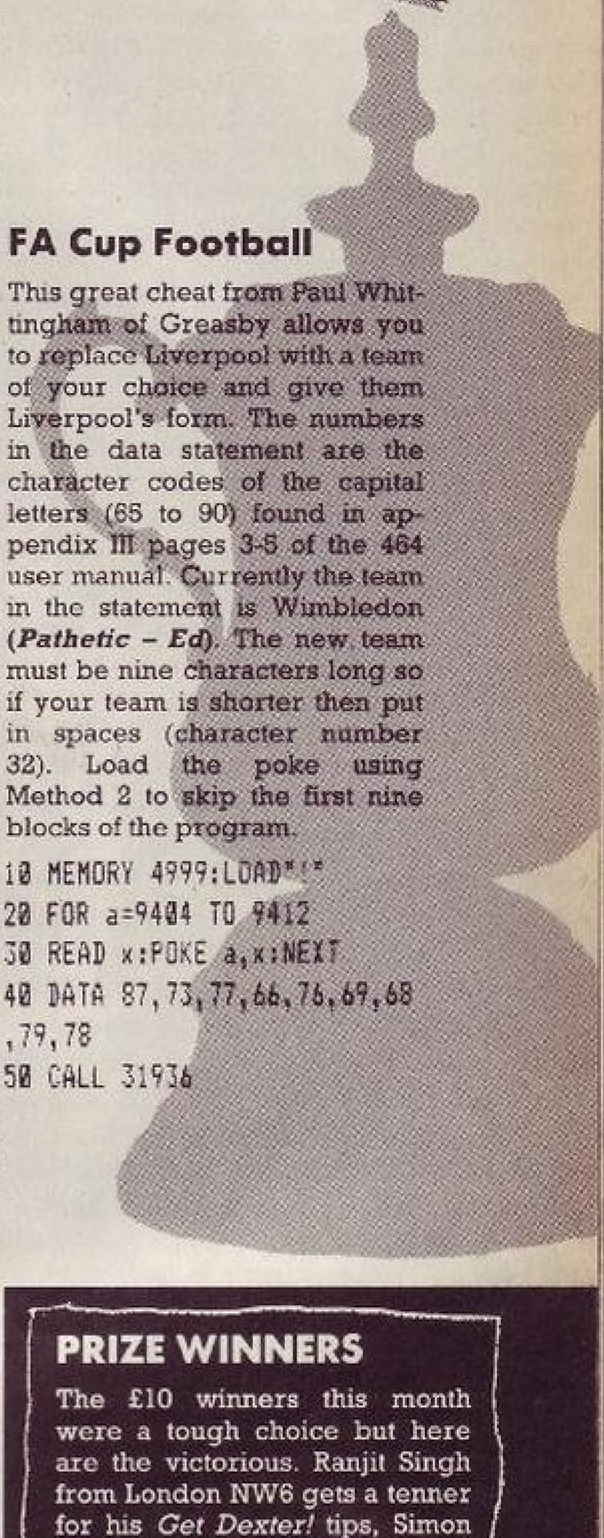
This listing from Tony Hoyle of Marple gives invincibility but doesn't stop the time limit running out. Also be careful to exit screens at "legal" points, otherwise it will crash. Enter the listing using Method 1.

```
10 x=&700
20 READ a:GOSUB 90:IF a()-1
THEN POKE x,a:x=x+1:GOTO 20
30 DATA &3e,&c9,&32,&08,&53,
-10,-20,-30,&c9,-1
40 x=&8000
50 READ a:IF a()-1 THEN POKE
 x,a:x=x+1:GOTO 50
60 DATA &21,&06,&80,&c3,&13,
&bd,&06,&00,&11,&00,&c0,&cd,
&77,&bc,&eb,&cd,&83,&bc,&22,
&2e,&80,&21,&19,&80,&c9,&e5,
&2a,&2e,&80,&e3,&e5,&21,&00,
&07,&22,&38,&bd,&f5,&3e,&c3,
&32,&37,&bd,&f1,&e1,&c9
70 DATA -1
80 CALL &8000
90 IF a=-10 THEN a=PEEK(&BD3
7):RETURN
100 IF a=-20 THEN a=PEEK(&BD
38):RETURN
110 IF a=-30 THEN a=PEEK(&BD
39):RETURN
120 RETURN
```

Last V8

A great poke from Simon Goodwin of Middlesbrough that prevents the car from crashing. Use Method 2 to get past the first block of the program. Note that driving into some areas will corrupt the screen but if you know where you're going you can get back to the display proper without crashing the game completely.

```
10 MODE 0
20 OPENOUT"dum":MEMORY 1799:
CLOSEOUT
30 LOAD"!a"
40 LOAD"!b",49152
50 LOAD"!c",12800
60 LOAD"!d",1800
70 FOR n=0 TO 15:INK n,0:NEX
T n
80 LOAD"!e",49152
90 POKE 1908,0:POKE 1909,0:P
OKE 1910,0:POKE 1911,0:POKE
1912,0
100 CALL 1800
```



FA Cup Football

This great cheat from Paul Whittingham of Greasby allows you to replace Liverpool with a team of your choice and give them Liverpool's form. The numbers in the data statement are the character codes of the capital letters (65 to 90) found in appendix III pages 3-5 of the 464 user manual. Currently the team in the statement is Wimbledon (***Pathetic – Ed***). The new team must be nine characters long so if your team is shorter then put in spaces (character number 32). Load the poke using Method 2 to skip the first nine blocks of the program.

```
10 MEMORY 4999:LOAD"!"
20 FOR a=9404 TO 9412
30 READ x:POKE a,x:NEXT
40 DATA 87,73,77,66,76,69,68
,79,78
50 CALL 31936
```

Combat Lynx

Durell Software have given us permission to print this tape to disc transfer listing of their still-popular action flight simulator. However they ask that disc copies created with it be SOLEY for the personal use of those who have bought an original copy of the cassette. You've got KD Bryant of Beenham to thank for this listing but future transfers are dependant on the agreement of the software house concerned.

To transfer just type in the first listing and RUN it. This will prompt you to play the tape (making sure it's rewound first) and will automatically save it to disc. Now type in the second listing and save it to disc under the filename "LYNX". To run the game from disc just type RUN"LYNX.

```
10 MODE 1
20 |TAPE.IN:MEMORY 5630
30 LOAD"MAIN"
40 SAVE"COM",b,5630,32767-
5630
```

```
10 MODE 1
20 MEMORY 5630
30 LOAD"COM"
40 |TAPE
50 CALL 32138
```

GRUMPY GUMPHREY

SUPERSLEUTH

Another Phil Howard poke that gives infinite energy to the frustrated store detective. It's entered using Method 1.

```
10 DATA 21,2b,8a,36,c9,c3,00
,80
20 MEMORY &7000
30 LOAD""
40 POKE &7653,3
50 FOR x=&300 TO &307
60 READ a$
70 POKE x,VAL("&"+a$)
80 NEXT
90 CALL &7530
```

PRIZE WINNERS

The £10 winners this month were a tough choice but here are the victorious. Ranjit Singh from London NW6 gets a tenner for his *Get Dexter!* tips, Simon Goodwin from Middlesbrough gets £10 for his *Last V8* and *Chiller* pokes while the third prize is split between Emmet Masterson and Simon O'Connell from Sidcup for their *Thing on a Spring* and *Tombstowne* tips. We don't have Emmet and Simon's addresses though so if they would like to contact us in writing we'll be able to send them a fiver each.

Problems Problems

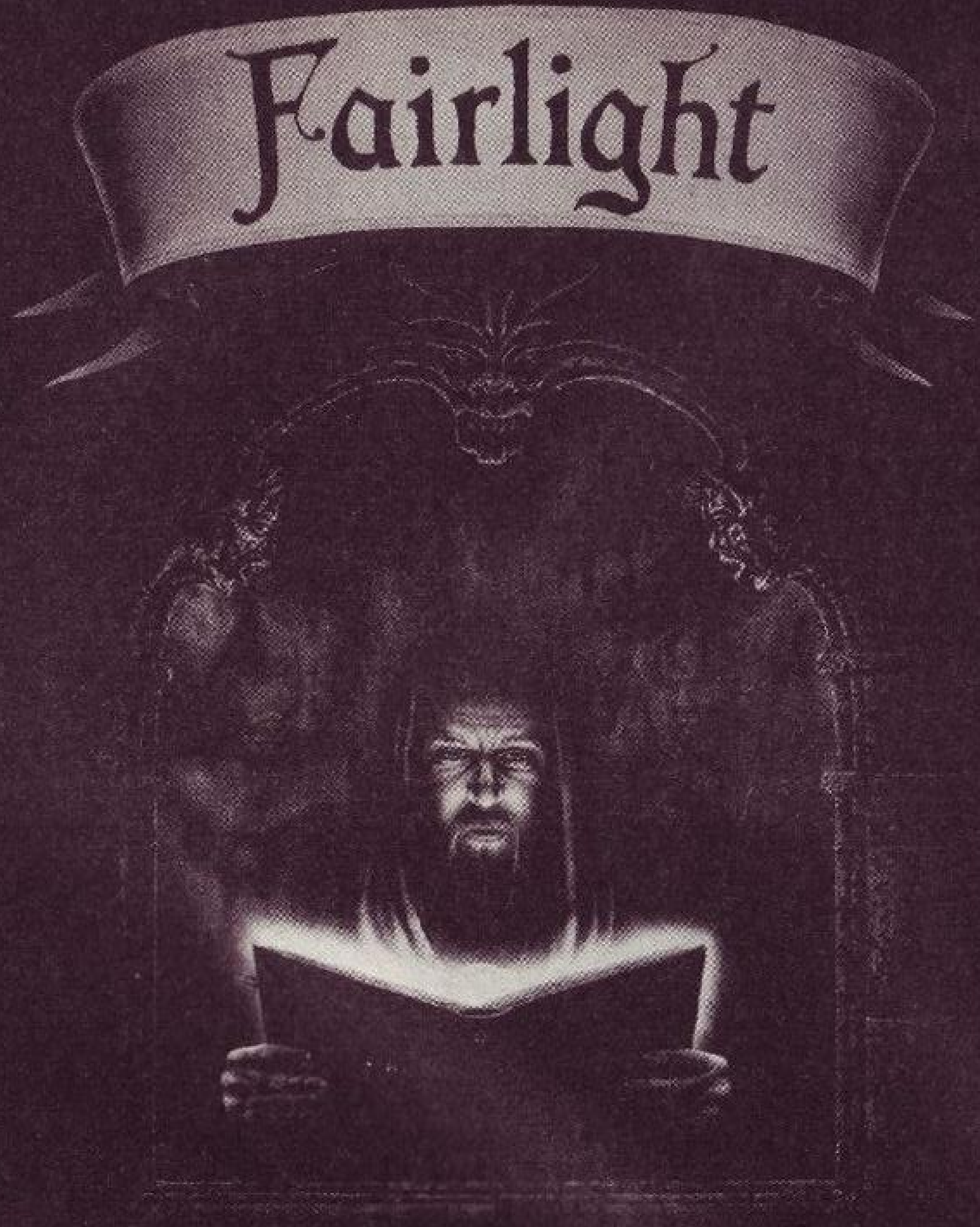
Gaff of the month last month was on the *Highway Encounter* poke. Line 140 should have read:

140 LOAD"!",&2040

For those of you who have been trying to enter the *Covenant* poke from issue 4 on our cover cassette I've got some bad news – it doesn't work. It did work with the original version of the game but not with the one we gave away. If anyone has got a poke for our version we'd be delighted to see it.

We've had a number of inquiries this month from people asking for help on specific games. Unfortunately we aren't able to make direct replies to these because of the time involved. We print just about everything we can get our hands on in these pages you'll just have to keep your eyes peeled for someone giving help on your particular game.

Fairlight



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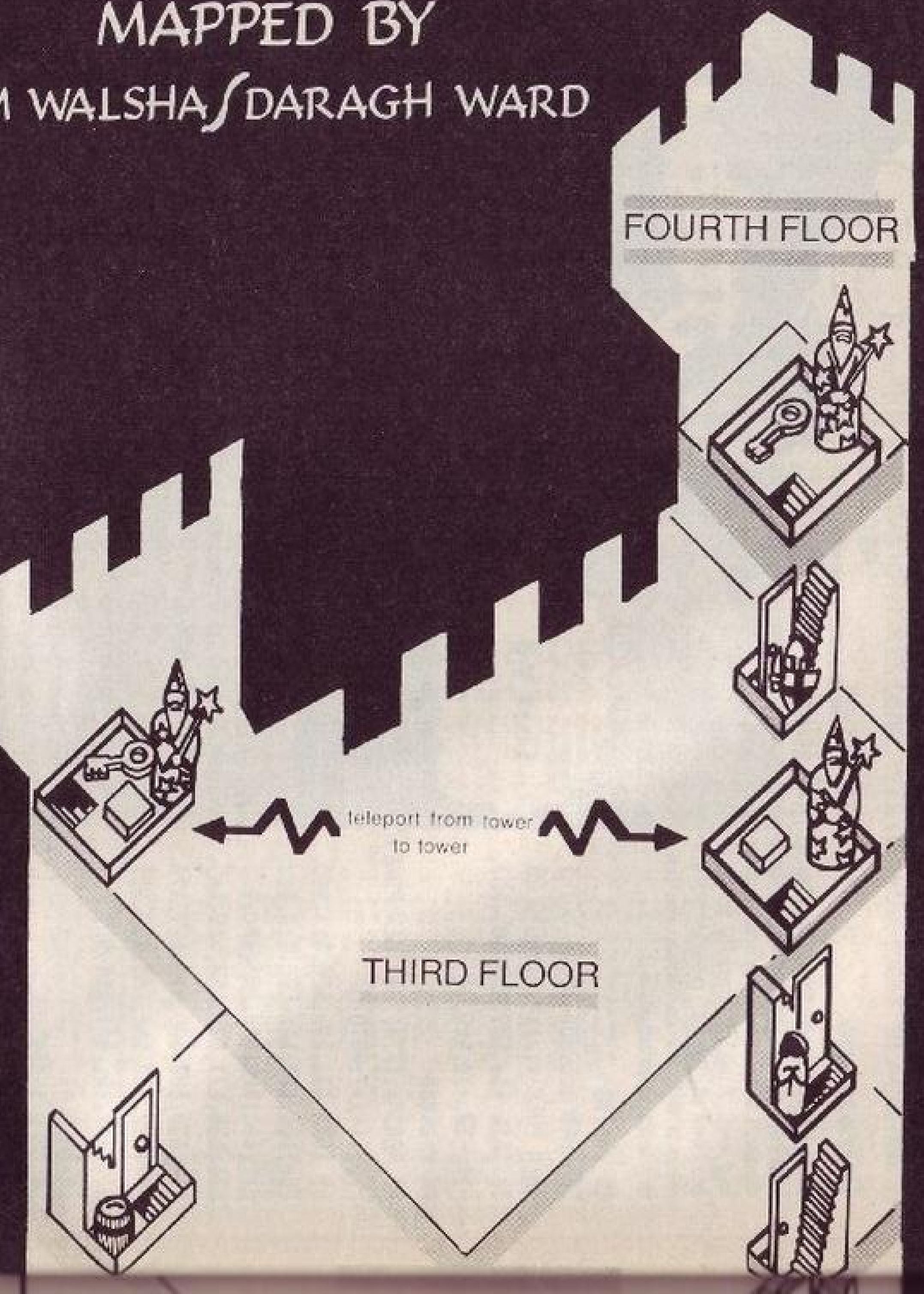
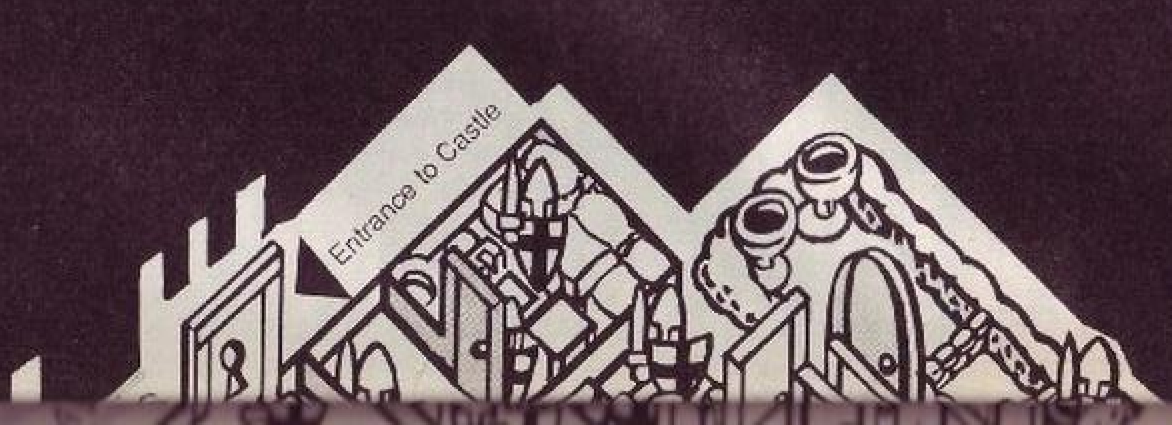
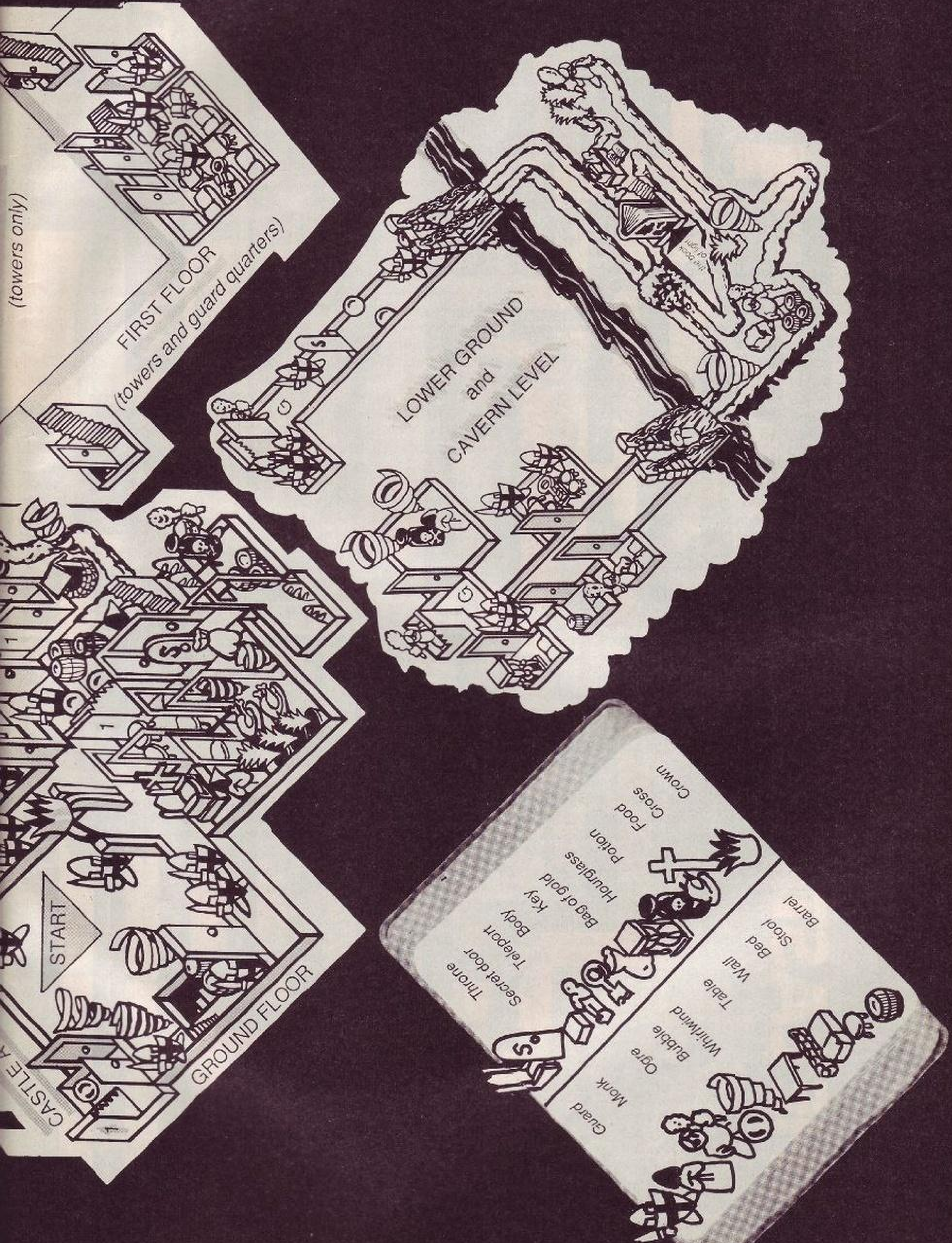
TIM WALSHA/DARAGH WARD


FOURTH FLOOR
teleport from tower to tower
THIRD FLOOR


Entrance to Castle

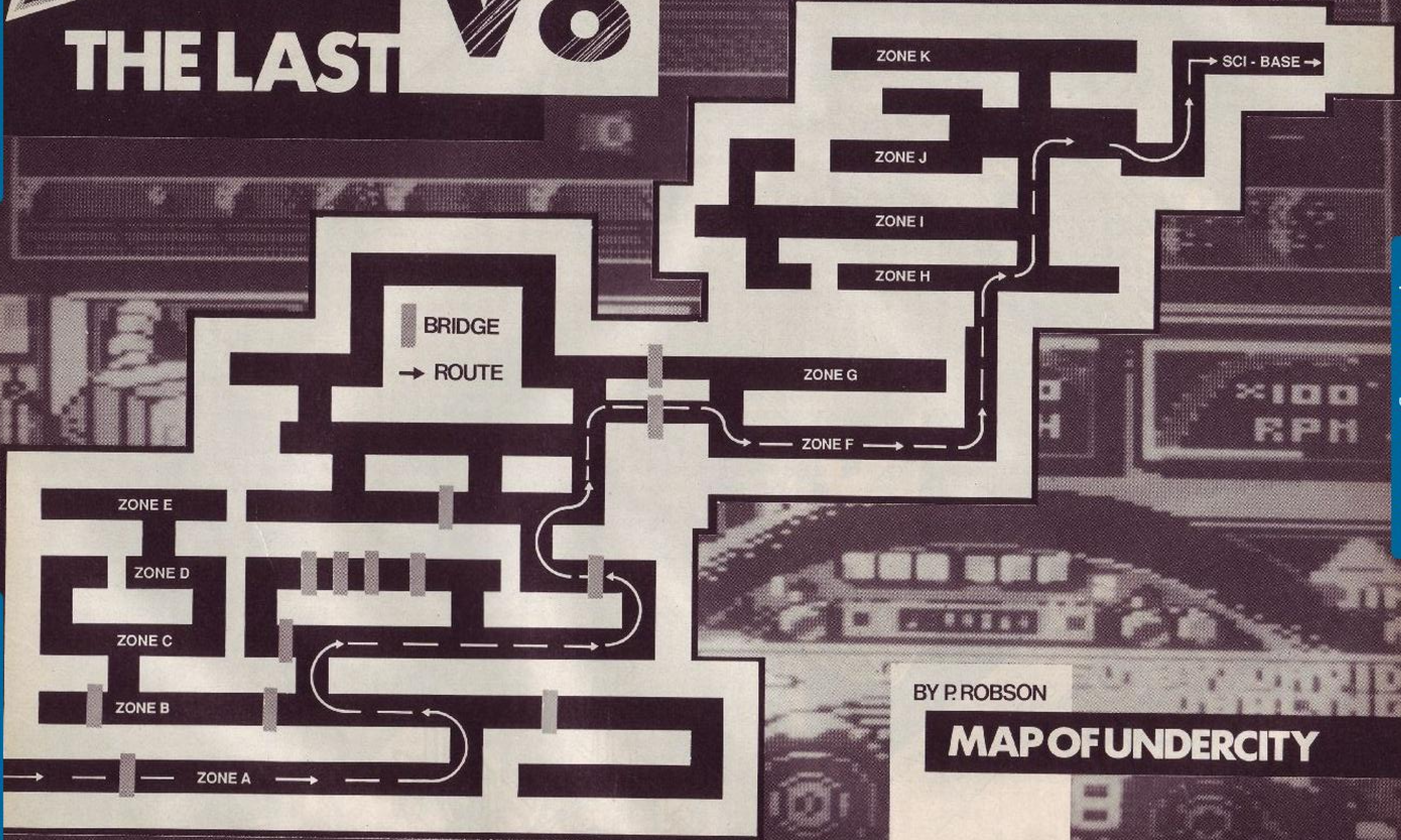

(towers only)
FIRST FLOOR
(towers and guard quarters)
LOWER GROUND
and
CAVERN LEVEL
the book of light
G
S
1
START
CASTLE A
GROUND FLOOR
Guard
Monk
Ogre
Bubble
Whirlwind
Table
Wall
Bed
Stool
Barrel
Throne
Secret door
Teleport
Body
Key
Bag of gold
Hourglass
Potion
Food
Cross
Crown

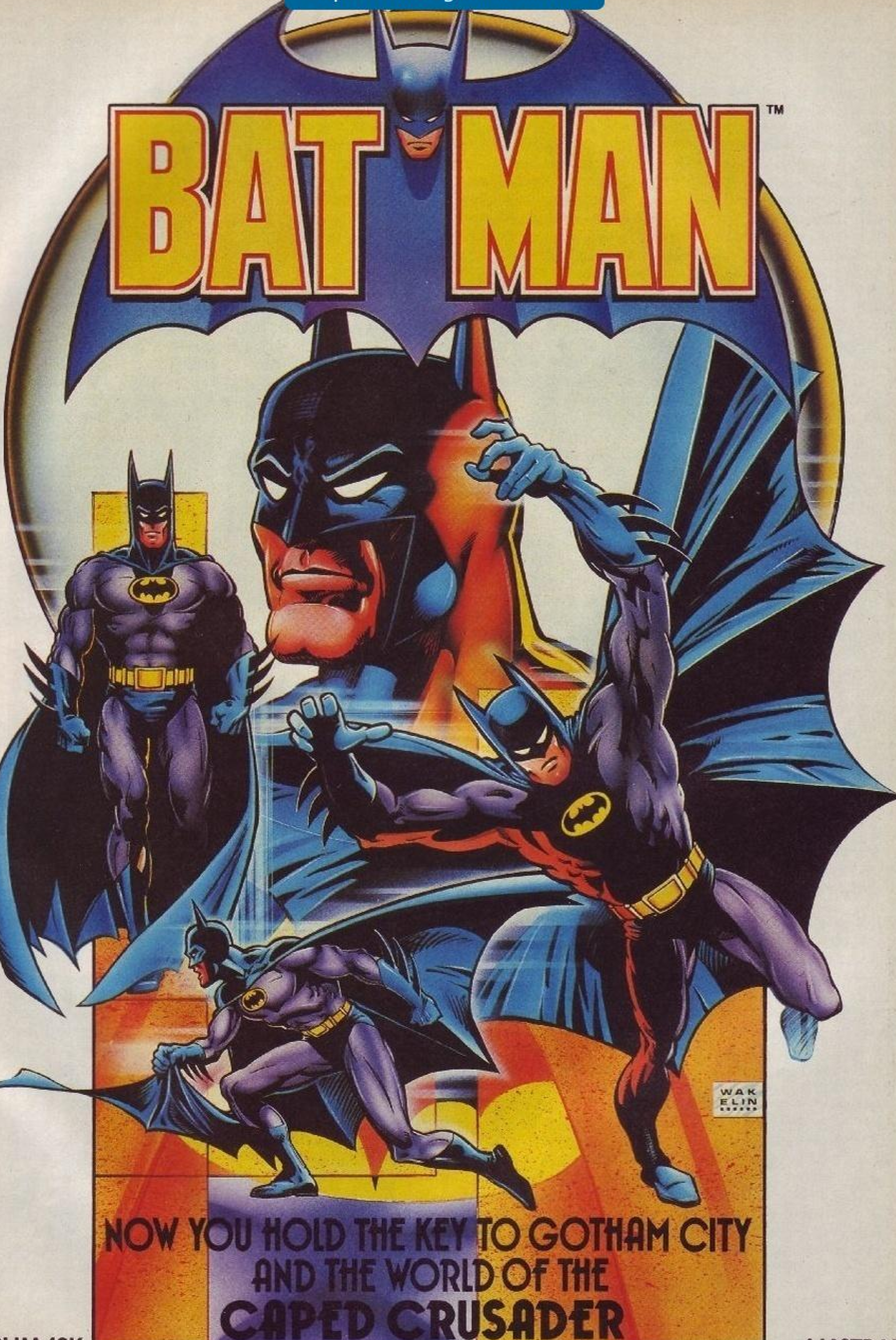
CHEAT MODE

THE LAST V8

BY P. ROBSON

MAP OF UNDERCITY


ZONE A
ZONE B
ZONE C
ZONE D
ZONE E
ZONE F
ZONE G
ZONE H
ZONE I
ZONE J
ZONE K
SCI - BASE →
BRIDGE
→ ROUTE
x100
R.P.M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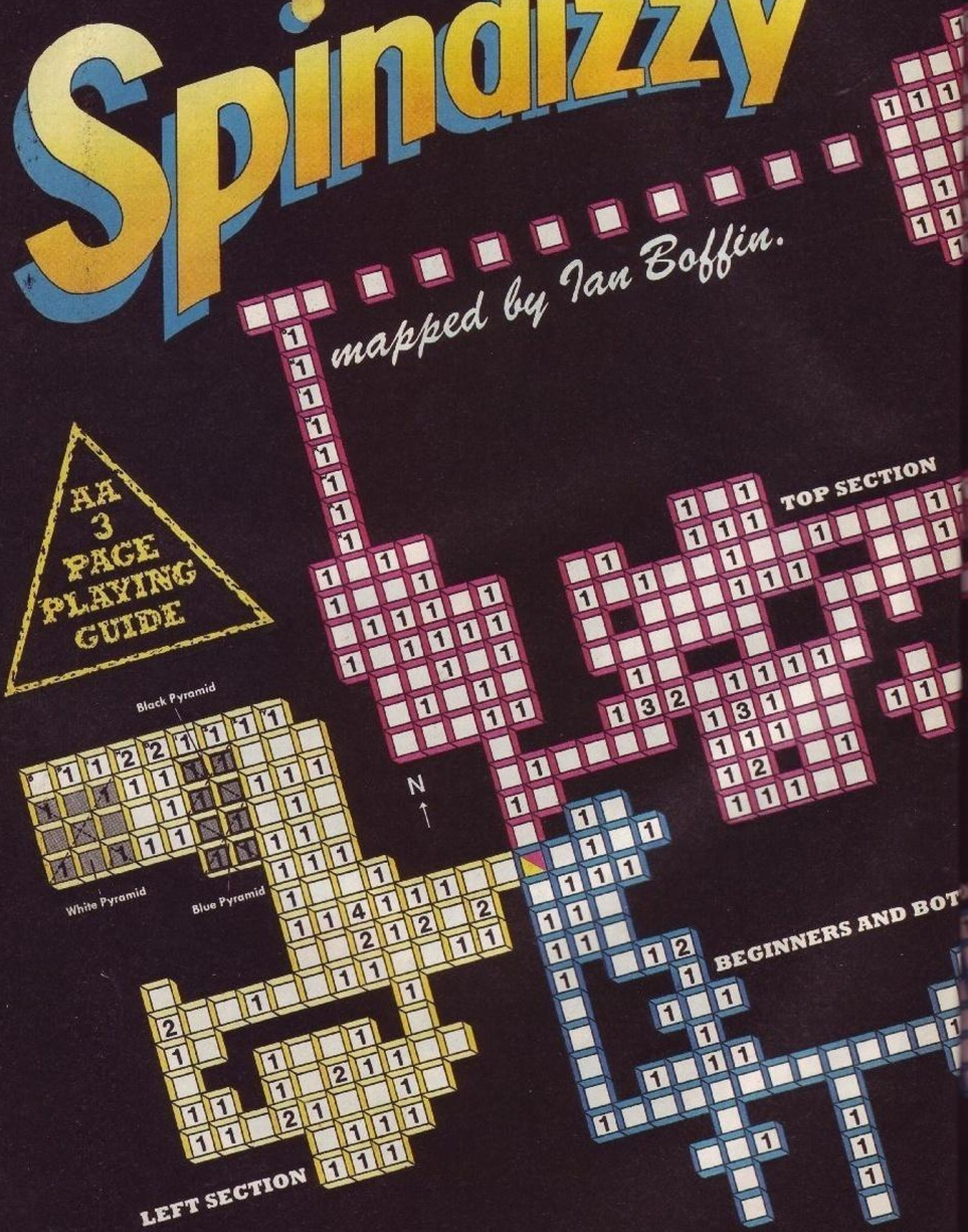
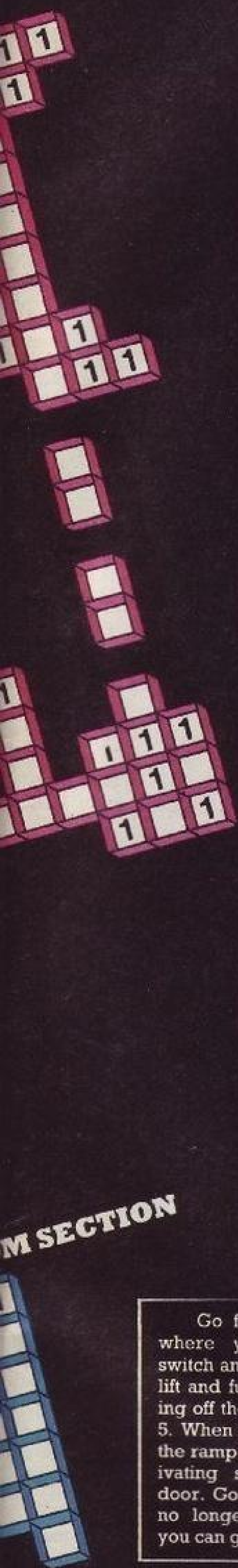
Spindizzy

mapped by Ian Boffin.

AA 3 PAGE PLAYING GUIDE


TOP SECTION
Black Pyramid
N ↑
White Pyramid
Blue Pyramid
BEGINNERS AND BOT
LEFT SECTION

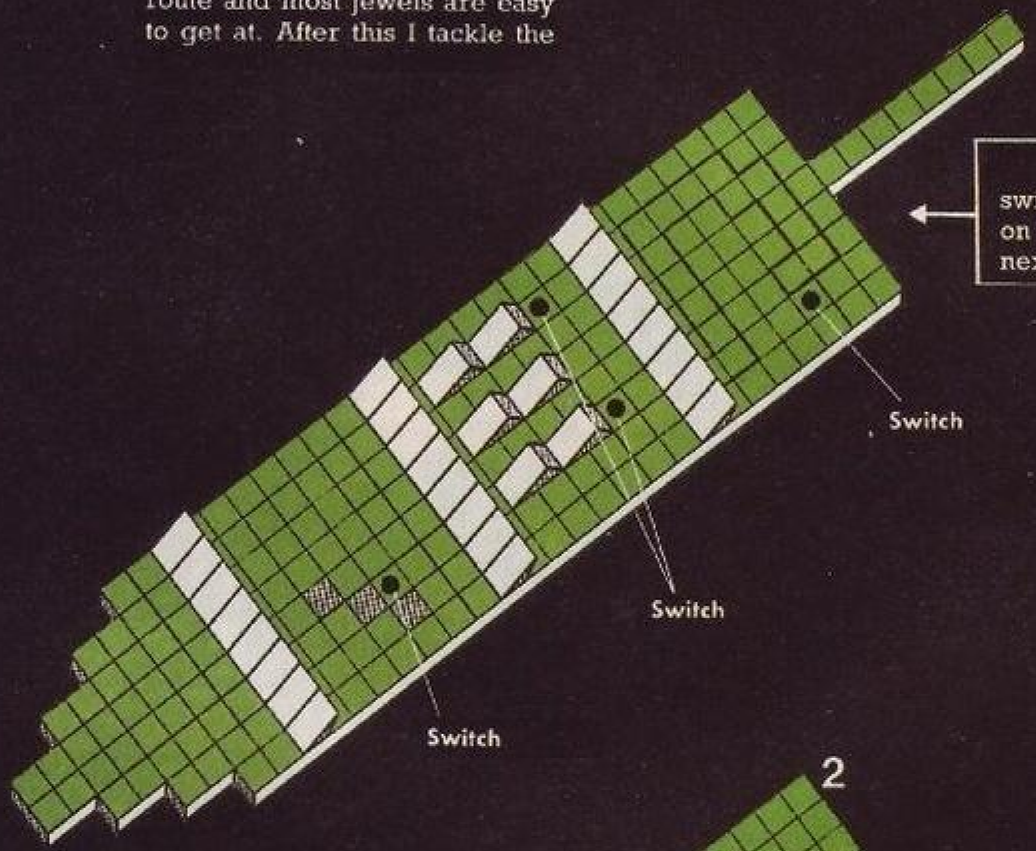


We've recalled Ian Boffin from the depths of deep space and his *Elite* playing guide to bring you the low down on Electric Dreams all time classic game. As well as a map showing how many jewels are on each screen there's in depth study of the more interesting areas of the game and some great playing tips that will help both the beginner and the advanced player progress.

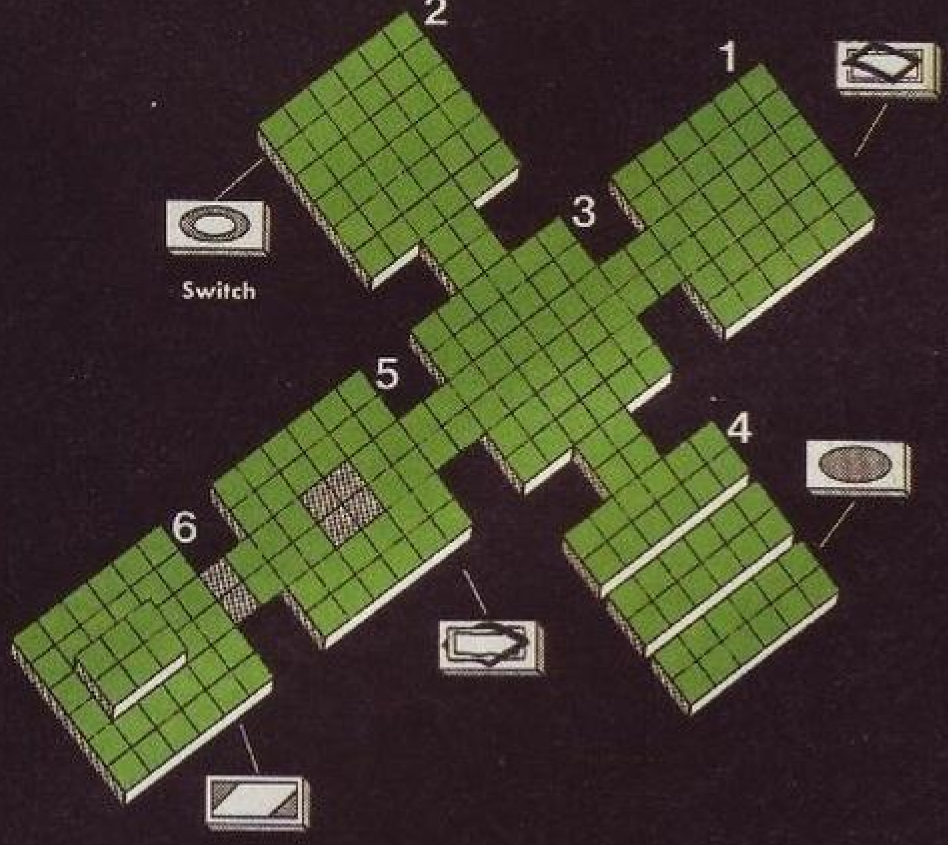
Starting out

Due to the immense size of the task ahead the programmer has kindly split the game into four different sections. The beginners section is for discovering how the controls handle while the rest is the "real" game.

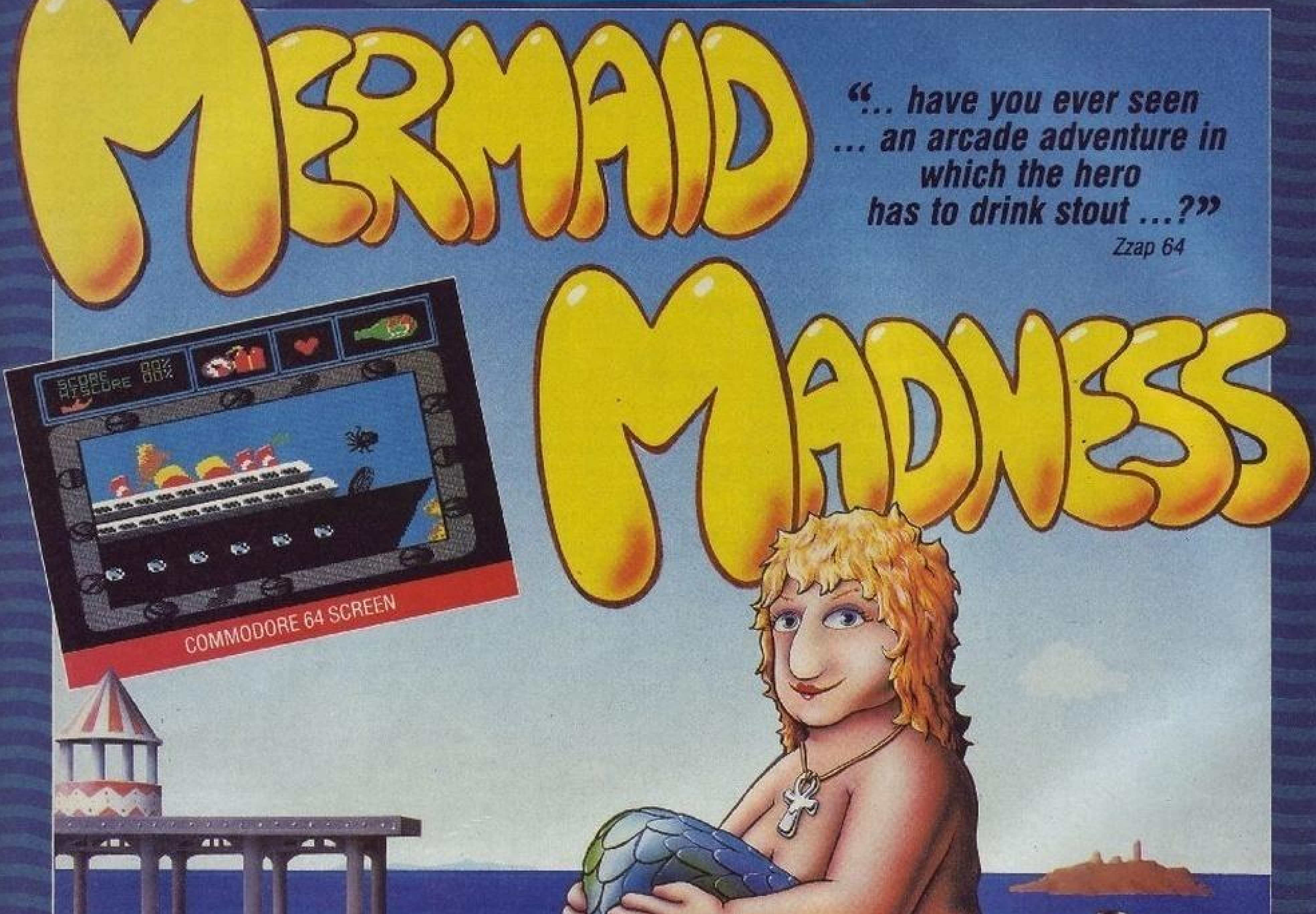
I find that the bottom part of the map is easiest (relatively anyway), mainly because it guides you round most of the route and most jewels are easy to get at. After this I tackle the section to the left of the start room. Some of this is easy but others verge on the impossible. Finally you should try your hand at the large top section where even if sections look impossible to get to you should try to approach them from another side.



After getting the correct switch to remove the ramps stay on the blank squares until in the next room.



Go from 1 to 3 to 5 to 6 where you should flick the switch and go up the lift. Get off lift and full speed north bouncing off the trampolines on 6 and 5. When in 3 go into 2 and use the ramp in 2 to avoid the deactivating switches on the exit door. Go into 4 where the floor no longer disappears so that you can get the jewel.



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Spindizzy

Control

I don't much care for the keyboard control and in the way of a joystick, one with suckers on the base is very useful. This is so that you can have a spare hand to operate the space bar. The joystick needs gentle manipulation rather than heaving around and if you can get through the wiggly bits just beneath the start you're well on the way.

The fire button accelerates Gerald faster than normal, like a turbo cutting in, and comes into its own on steep slopes and jumps. Usually on a slope pushing up it will make you sit still but by pressing fire you can progress up it at a fair rate. The space bar acts as a halt on frictional surfaces but will cost you a lot of time while you're using it, and on very steep slopes even this won't stop you sliding down.

The word Spindizzy

Once up on the letter just go for all the switches and it should be fairly straightforward. A warning though one bit is really nasty so try to avoid Gerald making like a lemming.

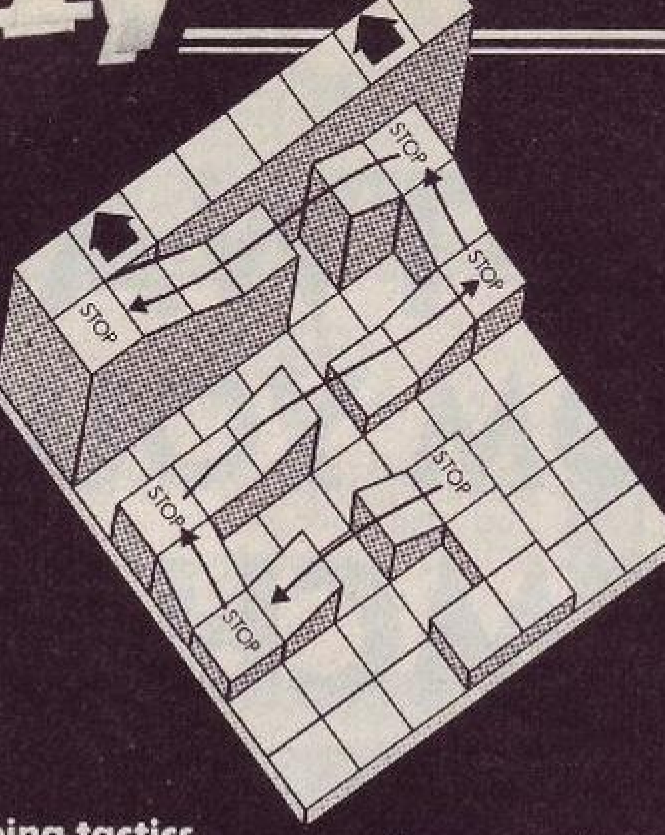
Reaching the crescent moon

Having made it through the tower section you can get to the bit that connects to the column of eight screens. To get onto the column try to go round the raised border and when on the room adjacent to the column push forwards and a lift will take you up.

If you have been this far you will notice that it spells out Hawkwind. Once at the top go to the lift and get onto the raised platform. Go west and stop on the line where the back slop starts. Go full speed east until you speed off the edge. Then you will bounce your way along alternate screens. If you find yourself nearing the east edge of any screen hold the joystick left and press fire. Much the same method works for exiting south from the moon.

White pyramid

NE jewel needs ◯ ◑ switches from north entrance.
NW jewel needs ◯ ◐ switches from west entrance.
SW jewel needs ◯ ◑ switches from south entrance.
SE jewel needs ◑ ● switches from east entrance.



Jumping tactics

On this screen there is little room for run-ups and jumps. To do all these jumps, steady yourself on the square before the ramp and slowly drift to the back of the square. Full speed up the ramp with the fire button down to make the jump. Either hit the space bar or accelerate in the opposite direction to that in which you're going, depending on whether you can afford the time loss.

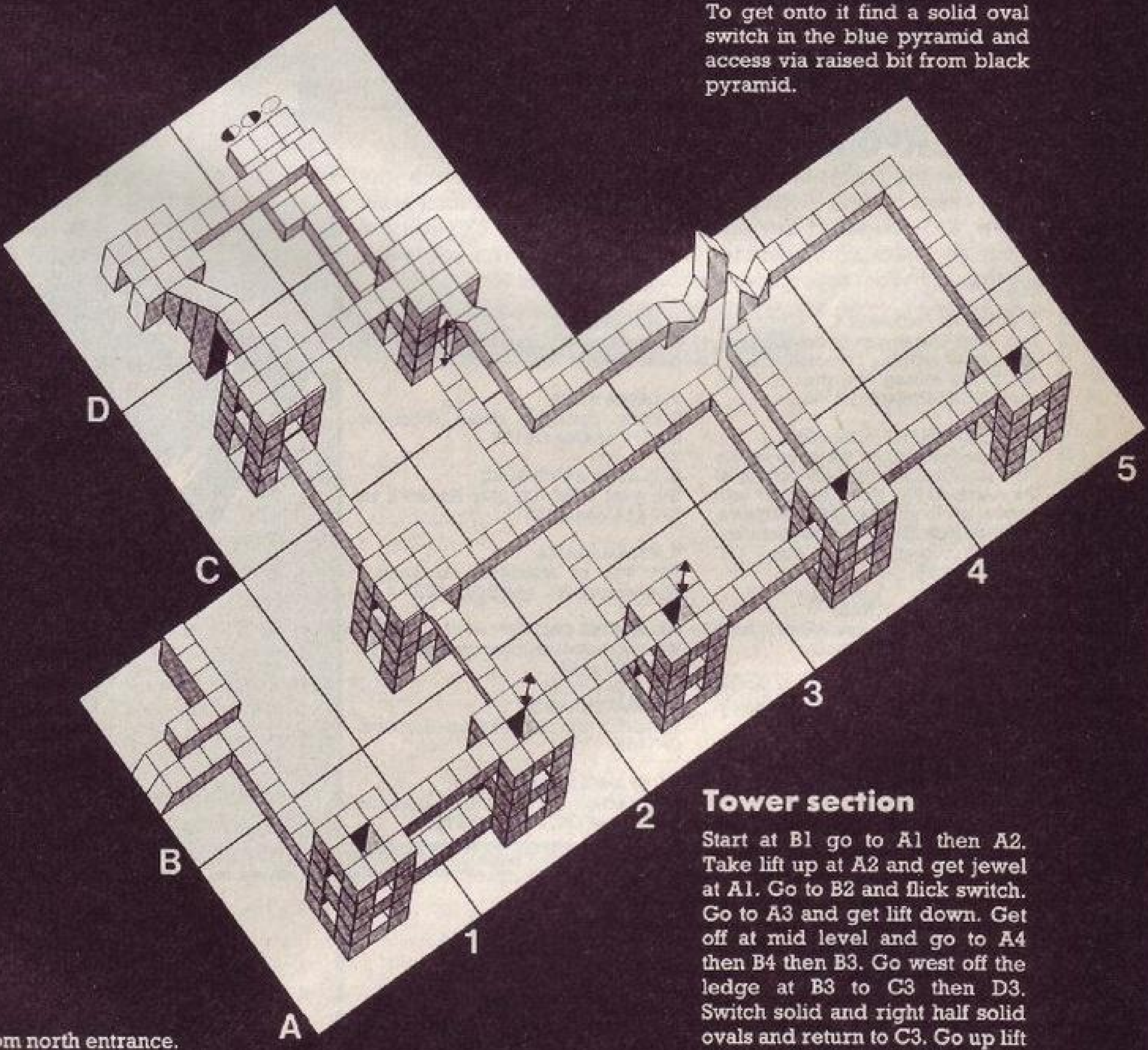
Switches and puzzles

These are the key to the whole game and where the puzzling comes in. In several places the problem is getting somewhere without the switch being deactivated by a cancelling switch. In some places a raised border path is helpful.

The switches are obvious as a means to turn on several lifts but the other less apparent use is in revealing and building new ramps and routes. Usually if you do get stuck at a dead end it requires the use of a switch to build a ramp. A classic case is in the upper section where there is a cross separate from the main map. For this you need a switch, which is fairly obvious because of the clue given. How you activate the switch is easy enough but how you get back to the right place without deactivating it is another matter – it is so obvious as to be infuriating.

Raised section beyond Spindizzy

To get onto it find a solid oval switch in the blue pyramid and access via raised bit from black pyramid.



Tower section

Start at B1 go to A1 then A2. Take lift up at A2 and get jewel at A1. Go to B2 and flick switch. Go to A3 and get lift down. Get off at mid level and go to A4 then B4 then B3. Go west off the ledge at B3 to C3 then D3. Switch solid and right half solid ovals and return to C3. Go up lift and go to D3 then D2. Climb ramp to C2 then go C3,B3,B4,B5,A5,A4,B4 and onto the next section.

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This tape featured on the cover of our May issue. It contains a full version of the AA-raved PSS game, together with demos of four other PSS programs. Supplied with instructions for transferring The Covenant to disc. CPC 464/664/6128

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ProSpell is a fast, multi-featured spelling checker which comes complete with 30,000 word dictionary. Unlike *ProMerge* it can be used with other word-processor programs such as *Wordstar*.

Now you can buy any of these programs at £5 off the normal asking prices! So, for example you could buy *Protext* on disc for just £21.95 (or on cassette for just £14.95). Or you might prefer to go for the ROM versions (which load instantly and give you extra memory space for your documents). These will cost just £34.95 for *Protext* or £29.95 for *ProMerge*. (However you will need a separate ROM board, not available through this offer.)

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CPC 464/664/6128

Three times in recent months Vortex have released software on the Amstrad. Three times they have won critical and popular acclaim. The games are *Highway Encounter*, *TLL*, and *Alien Highway*. You can pick any two of them for a snip.

Highway Encounter has been described by some as the most addictive game they've ever played. You have to guide a Terratron along a hazard-filled highway by controlling a dalek-like Vorton.

Alien Highway is the follow up, taking the game idea several stages further and making it harder still to finish.

TLL, the odd one out, puts you in control of a Tornado Low Level aircraft trying to bomb targets dotted around a 3D landscape which scrolls around the screen so smoothly you won't believe it.

All three games normally cost £8.95 on cassette and £13.95 on disc, so you can see our special offer is very special indeed.

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Holy smoke! This fantastic Ocean game going at £2 off the normal price of £8. cass, £14.95 disc. Having won a hot, hot A rave review in our May issue and the cov slot of June, it just demands to be bought.

The best 3D graphics yet. Massi playing area. Bamboozling puzzles.

Run for it, Robin!

HOT STUFF

Save £2!

MEXICO '86

Two-cassette package only £7.95
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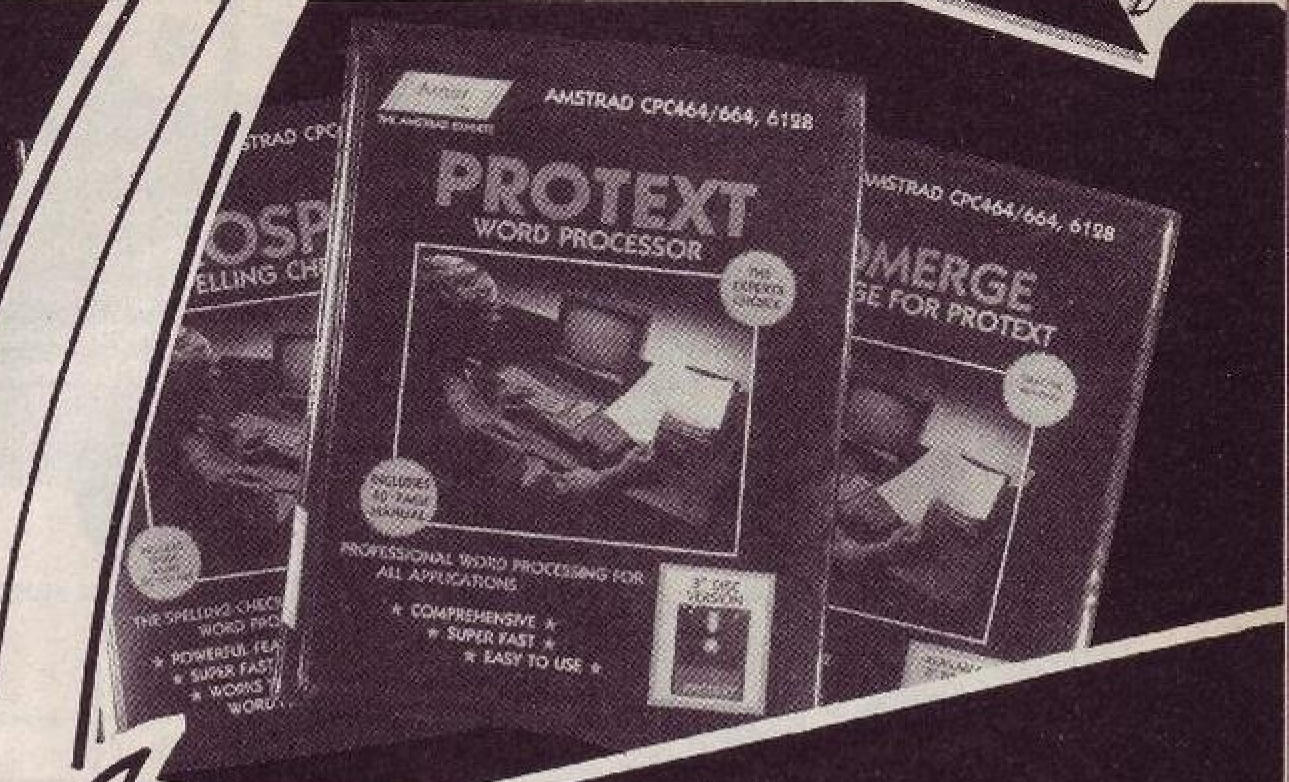
This program from Qualsoft, which has only ever been available on mail order, has attracted something of a cult following as the thinking person's football management simulation.

It places you in Bobby Robson's shoes as you try to lead the England team from the pre-qualification stage right through to victory in Mexico. You have numerous decisions to take including team selection, tactics planning and substitution timing.

The package, which includes a 20-page booklet, normally costs £9.95.

What better way of celebrating the World Cup summer than indulging in a little trial of strength of your own?

(Please note, this product has no association with FIFA nor with the US Gold title *World Cup Carnival*).



Save £3!

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It is also astonishingly good value for money even at its full normal price of £29.95. Our special discount makes this an excellent way of buying an excellent database.

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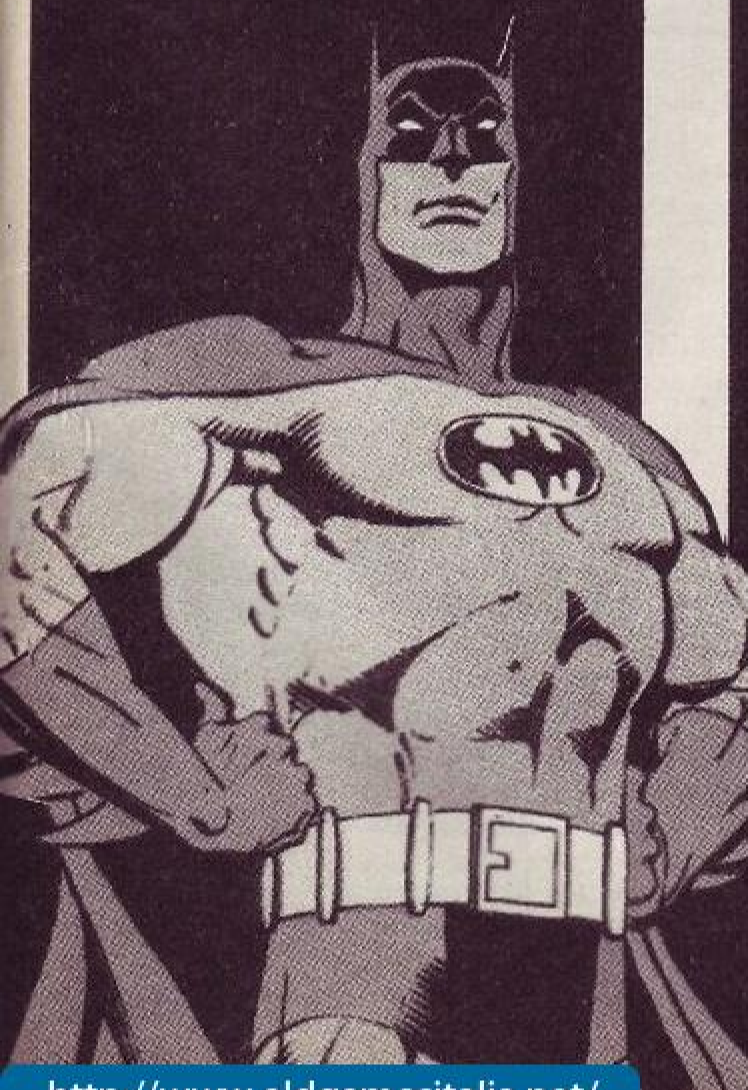
Gargoyle have proved themselves to be one of the greatest independent software houses supporting the Amstrad micros. Now by picking two of their very special games you can save yourself a packet. DUN DARACH was their first release – a huge arcade-adventure with Celtic atmosphere. AA Rave.

Then came MARSPORT, another big arcade-adventure with stunning animation but this time a futuristic location. It won the AA Mastergame slot.

SWEEVO'S WORLD featured Ultimate-style 3D graphics, wacky puzzles and entertaining animation. Another AA Rave.

Finally there was the innovative text-input adventure HEAVY ON THE MAGICK, a second stunning Mastergame.

Three of the games normally cost £9.95 on cassette and £13.95 on disc, the odd one out being *Sweevo's World* which is £6.95 cass, £12.95 disc. But whichever two you order, this offer provides you a superbly economic way of checking out this company's challenging, state-of-the-art software.



FFERS

Amstrad Action Readers' Charts

Elite **has once again hung on to its position at Number One with two newcomers from last month, *Get Dexter* and *Spindizzy* in hot pursuit. It has been a good month for new entries with four games in total making their debut in the charts. Could one of these become next month's Number One? Or will *Elite* still be there for the fifth month running?**

The Serious Software chart looks very similar to last month's with the top two programs holding on to their favoured positions. *Laser Basic* has slipped out completely and been replaced by *The Quill*, which has returned after spending a month out of the top ten, but remember that we need you to send in your votes and only these can determine what will happen in next month's charts.

The Voting System

For anyone new to our state-of-the-art voting forms and system or anyone STILL having trouble here's another run down on what to so and how to do it.

You have at your disposal a TOTAL of 10 votes for each chart. These can be split up any way you like on up to five titles, but the number of votes you give to the different titles must add up to 10.

For example, on the games chart you could give all 10 votes to a single game. Or you could 5 votes to one game, 2 to another, and 1 each to three others. You just have to allocate your 10 votes to reflect your preferences as accurately as possible. What you CAN'T do is give five different games 7 or 8 votes each. That's greedy.

One further thing you certainly can't do is send in photocopies of the form. There have been attempts at jiggery pokery in the past, so we want to avoid any possibility of it happening again.

SERIOUS SOFTWARE TOP 10

1.(1) Graphic Adventure Creator
Incentive (25.0%)

2.(2) AMX Mouse
AMS (14.2%)

3.(8) Easi-Amsword
Amsoft (8.0%)

4.(5) Mini Office 2
Database (7.1%)

5.(3) Mini Office
Database (7.1%)

6.(4) Tasword
Tasman (4.5%)

7.(-) Discovery
Siren (3.6%)

8.(7) Transmat
Pride Utilities (3.1%)

9.(6) Electric Studio Lightpen
Electic Studio (2.2%)

10.(-)The Quill
Gilsoft (2.1%)

GAMES TOP 20

1.(1) Elite
Firebird (11.6%)

2.(20) Get Dexter
PSS (9.3%)

3.(10) Spindizzy
Electric Dreams (7.6%)

4.(5) Who Dares Wins II
Alligata (6.7%)

5.(2) Yie Ar Kung Fu
Imagine (4.8%)

6.(3) Sorcery Plus
Virgin/Amsoft (4.5%)

7.(4) Spellbound
Mastertronic (3.1%)

8.(8) Highway Encounter
Vortex (2.4%)

9.(-) Batman
Ocean (2.4%)

10.(-)The Covenant
PSS (2.3%)

11.(16)Rambo
Ocean (2.2%)

12.(9) Tau Ceti
CRL (2.1%)

13.(6) Sorcery
Virgin/Amsoft (2.0%)

14.(11)TLL
Vortex (1.8%)

15.(13)3D Grand Prix
Amsoft (1.7%)

16.(7) Sweevo's World
Gargoyle Games (1.6%)

17.(12)Marsport
Gargoyle Games (1.5%)

18.(18)Starion
Melbourne House (1.2%)

19.(-) Thing on a Spring
Gremlin (1.1%)

20.(-) Commando
Elite Systems (1.1%)

THE ALL-IN-ONE ACTION FORM

This form has been created by the Save-Your-AA-From-Being-Overhacked-Department. You can use this side of it to register your high score claims and counterclaims and, most importantly, place your votes for the software you think is greatest. Then you can use the other side to enter our Reader Survey and get a chance of winning some software. All without doing any more damage to the mag than neatly clipping out one otherwise useless page. Clever, innit? Remember to fill in your name and address in the box on the other side.

High-score entry

I would like to register my high-scores in the following Amstrad games:

	GAME	SCORE	TIME TAKEN	LEVEL
1.				
2.				
3.				

I promise these are genuine scores achieved without using cheat methods.

Signed

High-score challenge

I hereby challenge the following high scores printed in Amstrad Action

	GAME	SCORE
1.		
2.		

I think the score(s) impossible because:

Game chart voting form

I would like to vote for the following game(s):

	GAME	SOFTWARE HOUSE	NO. OF VOTES
1.			
2.			
3.			
4.			
5.			

Total number of votes = 10

Serious software voting form

I would like to vote for the following piece(s) of 'serious software':

	PROGRAM	SOFTWARE HOUSE	NO. OF VOTES
1.			
2.			
3.			
4.			
5.			

Total number of votes = 10

AA READER SURVEY

You could win £25 of software!

Once again, dear readers, we appeal for your help. We need you tell us some more about yourselves and about your thoughts on Amstrad Action. Your filling in this questionnaire will help us make the mag what you want it to be — and it could also win you some free software. The senders of the first three questionnaires we pull out of the box on July 10th will be sent fabulous AA vouchers entitling them to £25 of goods of their choice.

Incidentally the only reason there is a space for your name and address is so that we know who to send the prizes to. You don't have to fill in those details and needless to say the answers you give will not be used for any other purpose than to help us build up a more accurate picture of our readers.

Having completed the questionnaire, you may also want to fill in the voting forms on the back of this page. Then send it to: *Action forms, Amstrad Action, Somerton, Somerset TA11 5AH.*

Name..

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Age __Under 13 __13-16 __17-20 __21-30
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Sex __M __F

Occupation...

1. What computer do you own?
__CPC 464 __CPC 664 __CPC 6128
__PCW 8256 __PCW 8512

2. Which of the following do you have?
__Colour monitor __Green-screen monitor
__Green-screen monitor plus TV modulator

3. How long have you owned your computer?
__0-3 months __4-6 months __7-9 months
__10-12 months __Over 12 months

4. Which of the following have you bought?
__Extra disc drive __Printer __Serial interface __Modem
__Mouse __Light pen __ROM board __Joystick
__RAM pack

5. Which of the following do you plan to buy in the next 12 months?
__Extra disc drive __Printer __Serial interface __Modem
__Mouse __Light pen __ROM board __Joystick
__RAM pack

6. Roughly how much have you spent on entertainment software in the last three months?
__Under £10 __£10-20 __£20-30 __£30-40 __£40-50
__£50-100 __Over £100

7. Roughly how much have you spent on serious software in the last three months?
__Under £10 __£10-20 __£20-30 __£30-40 __£40-50
__£50-100 __Over £100

8. What are the most common uses of your computer (tick up to three)?
__Games __Word-processing __Programming in Basic
__Programming in other languages __Communications
__Accounts __Graphics __Music __Data storage

__Other (specify)...

9. What are your main reasons for buying Amstrad Action (tick up to three)?
__Game reviews __Serious software reviews __Type-ins
__Adventure section __Cheat Mode __ReAction
__Advertisements __Learning programming or CP/M
__Humour __Game maps __Special offers __News
__Competitions __Reviews of add-ons

__Other..

10. On average how many other people read your copy of Amstrad Action?
__None __1-2 __3-4 __5-6 __7 or more.

11. Below is a list of topics. Please place a tick next to those you would be very interested to read about, a cross by those you would not be at all interested in.
__Programming in Basic __Machine code __Pascal
__Logo __CP/M __Software house profiles
__Computer book reviews __Educational software
__Business computing

12. Which magazine sections would you like given more space and which less (you must place the same number of ticks in the 'Less' column as in the 'More'!)?

	More	Less	Same
Amscene (news)	__	__	__
ReAction (letters)	__	__	__
Serious Software (reviews)	__	__	__
Plug-ins (reviews of add-ons)	__	__	__
Type-ins (program listings)	__	__	__
Action Test (game reviews)	__	__	__
Adventure	__	__	__
Cheat Mode (playing tips, Pokes)	__	__	__
Hi Score	__	__	__
Mail Order/Special offers	__	__	__
Competitions	__	__	__

13. Please number the following magazines in order of preference (your favourite should be number 1 — ignore any you are not familiar with).
__Amstrad Computer User
__Computing with the Amstrad
__Personal Computer World
__Computer and Video Games
__Your Computer
__Amtix
__Amstrad Action

14. How could Amstrad Action be improved?

....

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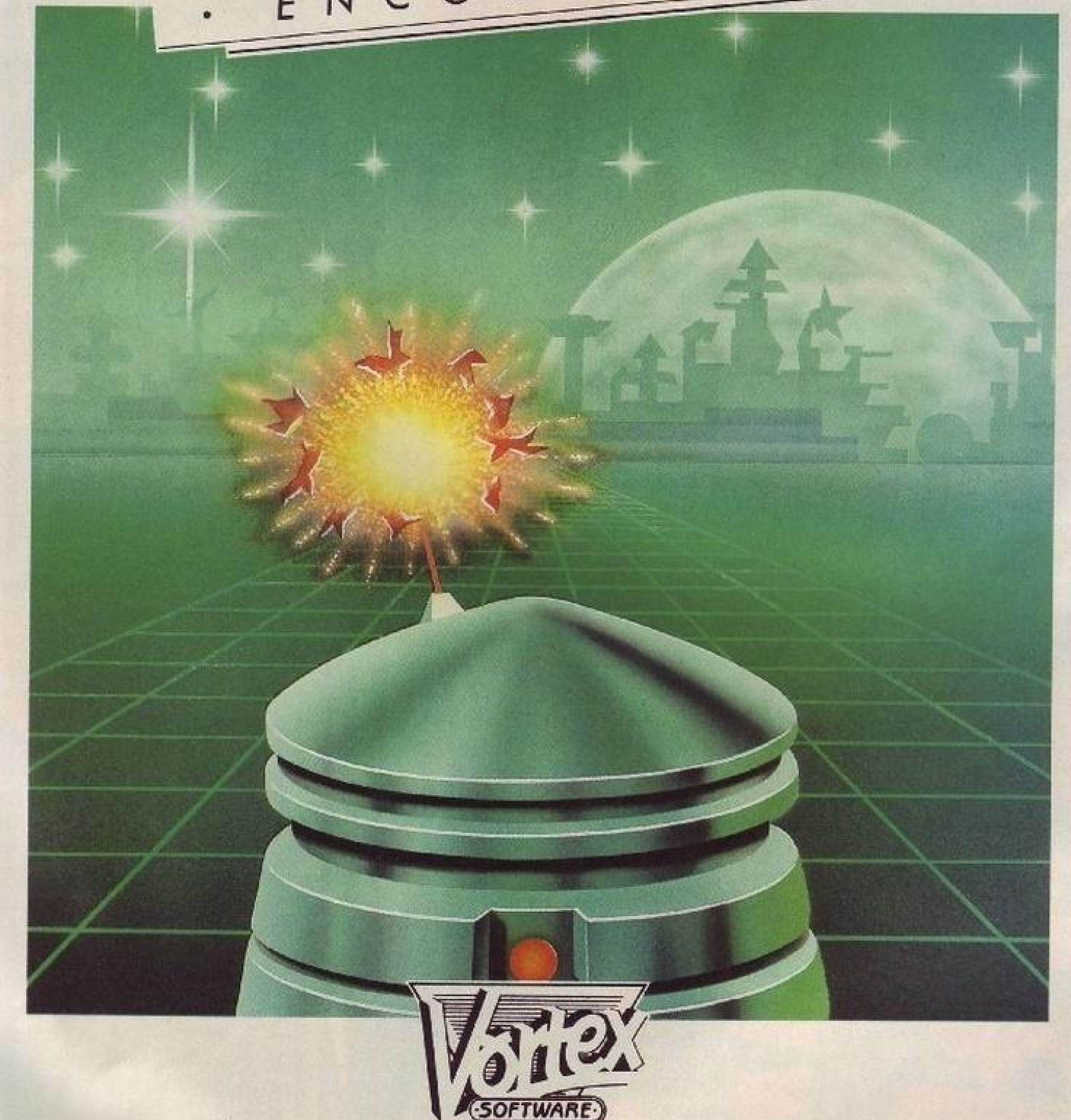
ALIEN HIGHWAY

· ENCOUNTER 2 ·



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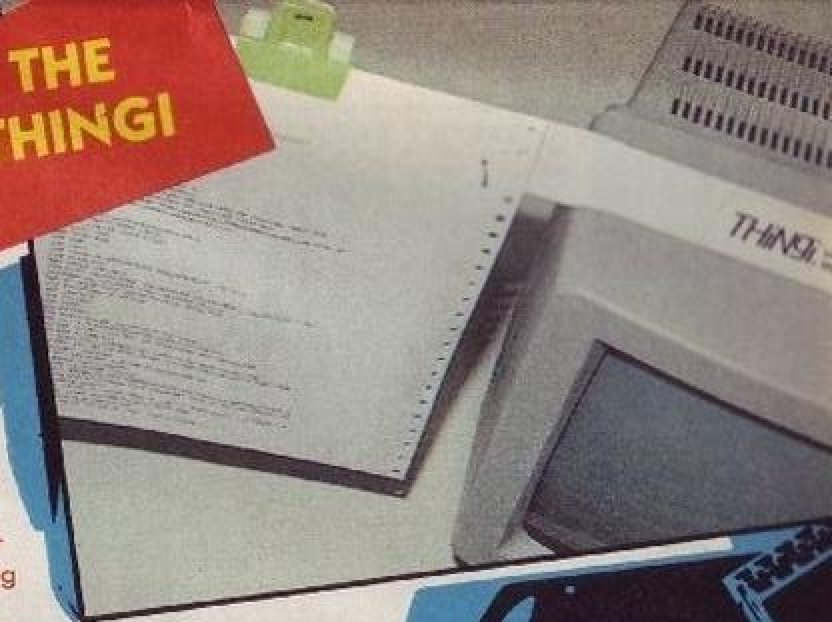
This is the stick that won enthusiastic praise in our April issue. Unlike most joysticks which work best standing on a table-top, this one is cleverly designed to fit neatly in your hand.

Chief Amstrad Action gametester Bob Wade, who now uses the Konix more than any other joystick, wrote: "The grip is very comfortable and should enable long hours of play... The internal contacts are micro-switches which give a positive clicking action. This makes it ideal for platform and waggling games, but it is also suitable for many others."

Bob added that the joystick might be a little large for young children – however there is a left-handed version if you prefer to hold the base of the joystick in your right hand and control the stick with your left.

The Speedking is built solidly and should stand up to months of heavy use. It normally sells at the bargain price of £12.99. Coming free with your subscription, it's a steal.



THE THINGI

This is the Thingi that sold like hot cakes on its launch at this year's computer show in Manchester. Like most brilliant ideas, it's stunningly simple, yet remarkably useful.

The Thingi is a carefully-shaped plastic holder which allows you to dangle a sheet of paper right next to your monitor screen at just the right angle for you to read from it. This is ideal for anyone who needs to refer to other documents while typing. For example you could use it to hold your copy of Amstrad Action upright while you type in a type-in. Or you could dangle a letter there while you're composing your reply.

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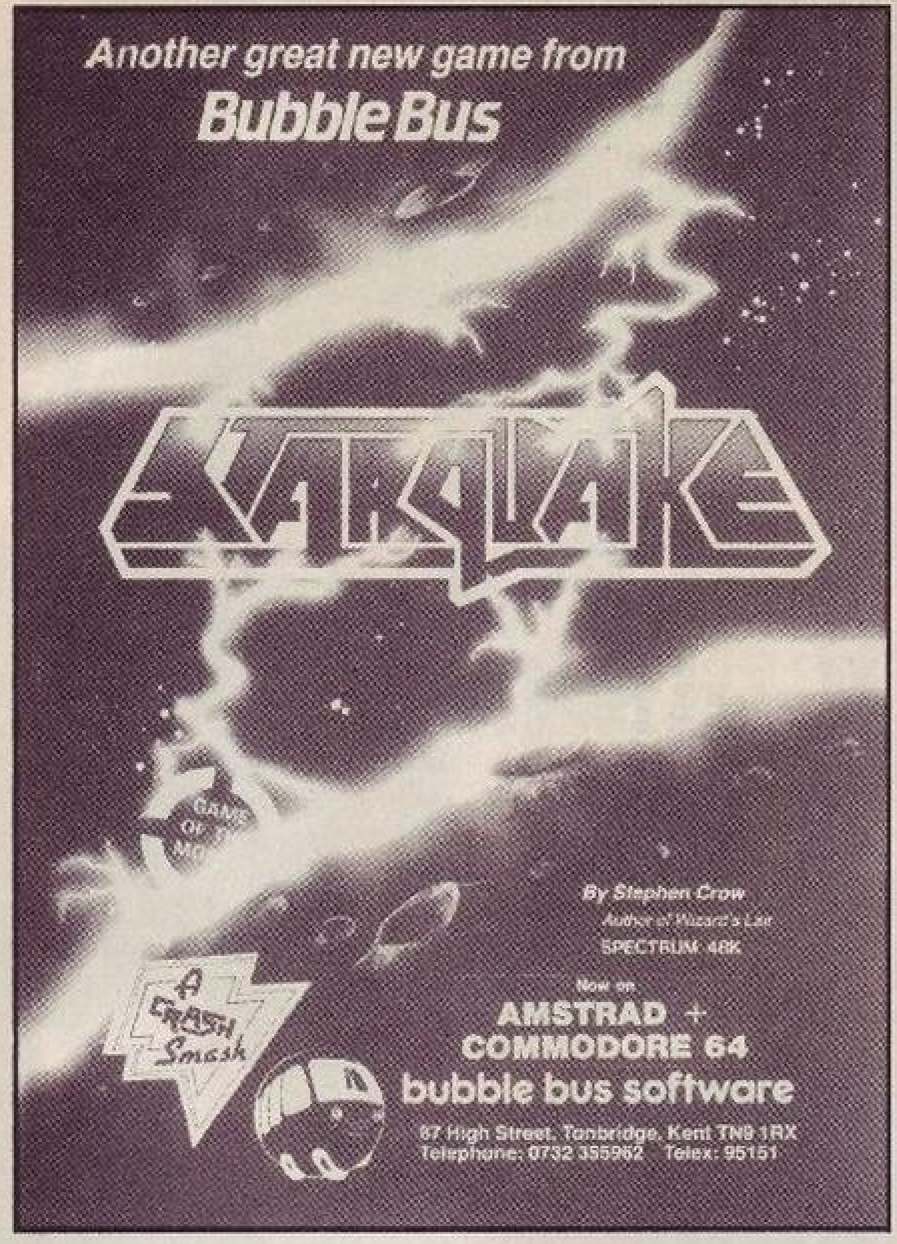

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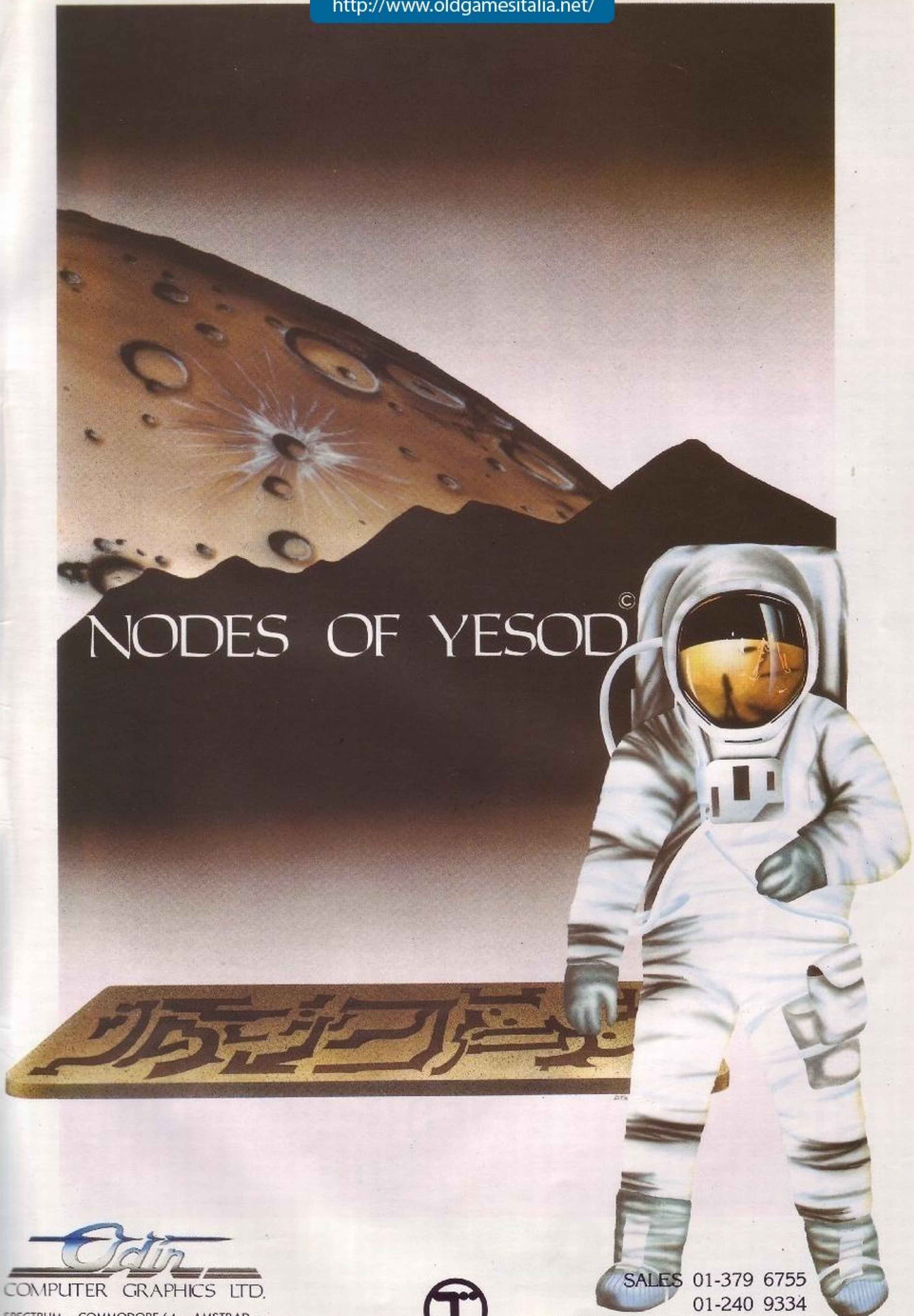

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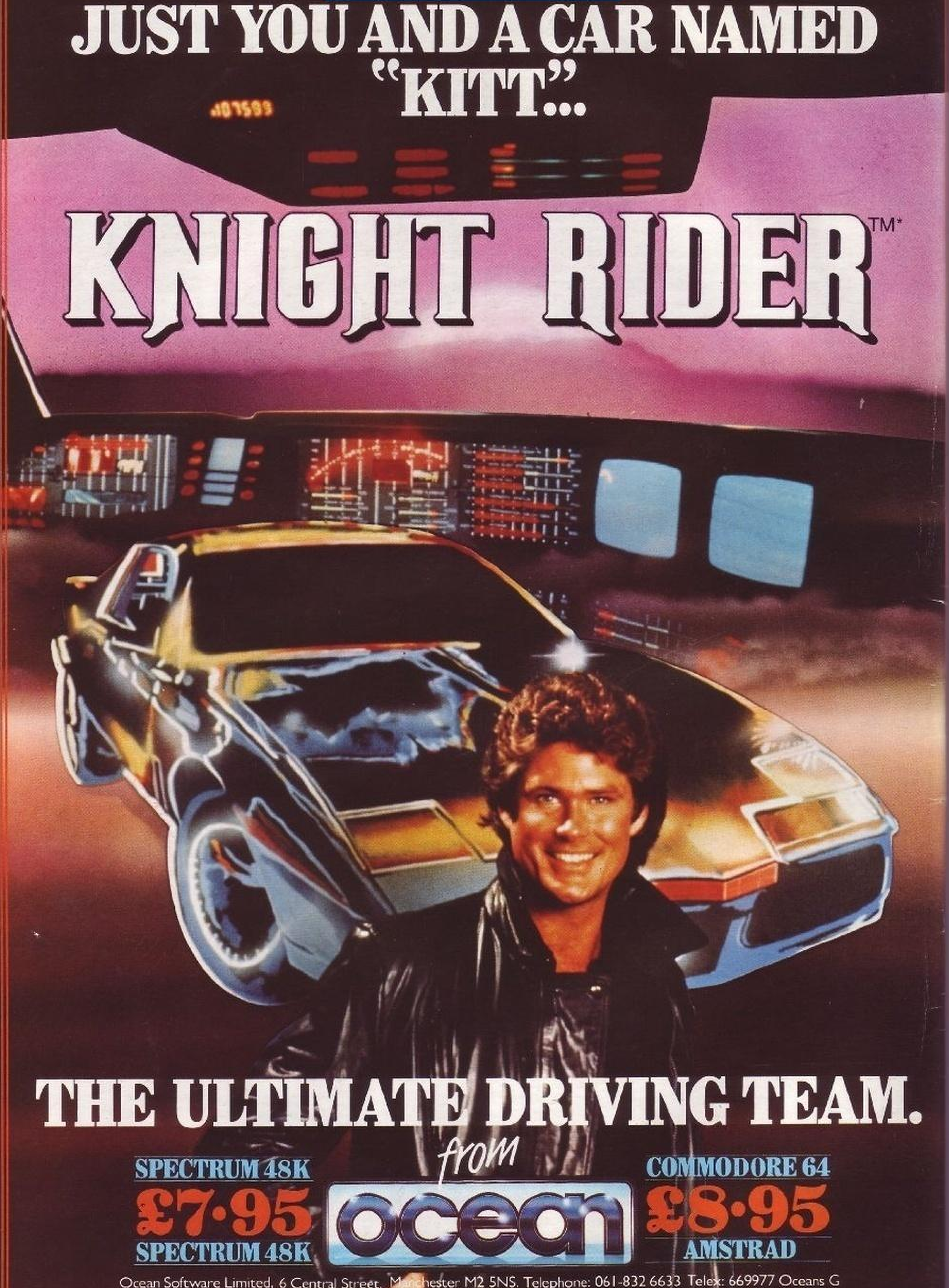
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